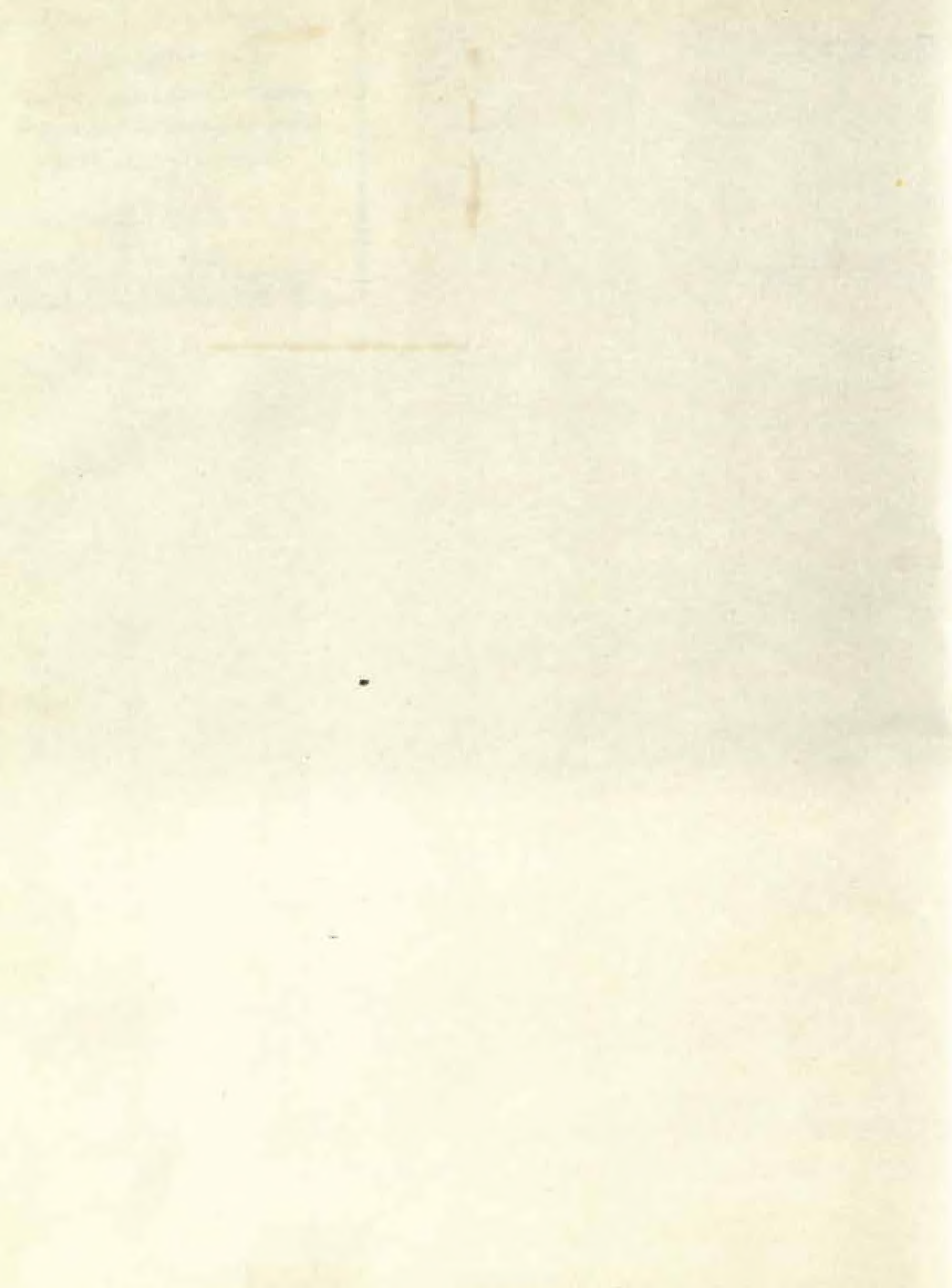


MEMOIRS OF THE
ARCHAEOLOGICAL SURVEY OF INDIA
No. 97

FURTHER EXCAVATIONS

AT

PAUNI 1994

BY

AMARENDRA NATH





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Cover :
front : cutting across the rampart
back : terracotta female head, Period IV

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MESSAGE

It is a matter of great satisfaction to know that one of the ways the Archaeological Survey of India is subscribing to the celebrations of the 50th anniversary of India's Independence is by way of bringing out a Memoir entitled "*Further Excavations at Pauni, 1994*" based upon the field work in the Wardha-Wainganga Valley undertaken by Dr. Amarendra Nath and his team from the Excavations Branch (I), Nagpur. This appreciable attempt to partake and contribute to the festivities by a timely publication of the excavation report is going to contribute to the long term cause of scholarship in future decades. What could be more befitting a tribute to the nation than to accomplish our tasks within the stipulated period of time.

I extend my heartiest congratulations to all the members of the Excavations Branch (I) and the Directorate General of the Archaeological Survey of India for their contribution in highlighting our glorious past.

BALMIKI PRASAD SINGH
SECRETARY CULTURE

Vijayadashami
11th October, 1997
New Delhi

FOREWORD

The present work, *Further Excavations at Pauni, 1994* in the Memoir series of the Archaeological Survey of India, is the outcome of the field work at Pauni, in the Wardha-Waingana Valley, by the Excavations Branch (I), Nagpur, led by Dr. Amarendra Nath, who is presently officiating as the Director, Institute of Archaeology. This Memoir assumes special significance not only because it proclaims to be the first publication of the series published during the year long celebrations of our country's 50th year of Independence, but also on account of the fact that it is one of the few excavations reports published within a short period of two years after the completion of field work. Excavation of any site, even though properly recorded and documented is, in fact, a kind of destruction, unless its result, in the form of a detailed report, is made available to the academic world within a stipulated time frame. I appreciate Dr. Nath's painstaking efforts to satisfy the curiosity of archaeologists at large.

Pauni is known to the archaeologists and historians at least from 1969-70 when the late Dr. S.B. Deo and Shri J.P. Joshi brought to light the remains of one of the largest brick-stupas. the present work, undertaken by Dr. Nath, besides confirming the already fixed chronology of the site, throws more light on the settlement pattern and its defence system, represented by rampart and moat. In other words the works of Dr. Deo, Shri Joshi and Dr. Nath supplement each other and are hence concomitant in nature.

I am thankful to Shri C. Dorje, Superintending Archaeologist and Dr. Arundhati Banerji, Deputy Superintending Archaeologist of the Publication Section of the Survey and M/s. Bengal Offset Works, New Delhi for their efforts in getting this work published.

AJAI SHANKAR
DIRECTOR GENERAL

Vijayadashami
11th October, 1997
New Delhi

PREFACE

Among the early historical sites on the Wardha-Wainganga Valley, Pauni happens to be the largest fortified settlement situated on the right bank of the river. It came into the limelight way back in 1969-70 when the late Dr. S.B. Deo and Shri J.P. Joshi undertook the excavations of three stupa mounds situated outside the fortification. Out of these, the stupa site locally known as Jagannath tekadi had yielded architectural elements, reminiscent of the universally renowned Sanchi stupa, evidently leaving an imprint of interaction between the settlements situated on the trans-Vindhyan trade route. In addition to stupa remains, the strategic situation of the site on the ancient trade route has invited spade work, within the walls of rampart, to assess its contribution to the contemporary commerce.

The present memoir embodies the results of field work undertaken within the habitation area, lasting for three months. The findings are concomitant to those reported earlier, qualifying the role of this site as one of the important outlying trading stations of the Satavahanas. Correspondingly, of vital socio-political consequence are the remnants of a brick fortification of the Satavahanas seen superimposed by the cyclopean wall of the Vakatakas, which, in the ultimate analysis underlines an unknown historical fact of peaceful transfer of power at the hands of the dying empire of the Satavahanas to their subservient *maharathi* Vindhyashakti, the founder of the Vakataka rule in the Wardha-Wainganga Valley. Possibly, the present location of the fortified settlement on the right bank of the Wainganga also contributed to the nomenclature Vakataka, a.i.e., *Va* signifying Wainganga and *Kataka*, obviously a settlement on the river bank.

In fact, the writing of the present report could be accomplished in October 1994, soon after the suspension of field work in the preceding May. It could be possible due to the selfless team effort put in by each and every member of the Excavations Branch (I), Nagpur. I must appreciate the assistance rendered by Shri S. Prathapachandran who shouldered the responsibilities of supervising the site together with registering the antiquities, chemical cleaning of metal objects and contributing observations on beads. Others who volunteered their services were Sarvashri N.C. Prakash in studying the archaeo-botanical samples and Ch. Babjirao in preparing a write-up on the pottery. Others who assisted in this work were Sarvashri S.V. Sutaone, P.M. Bhope, Shamsuddin, S.R. Gulrandhe, J.N. David, D.S. Shambharkar, S.M. Khairkar, A.E. Keshwar, Shahid Akhtar, S.A. Kamble, M.R. Kambe and S.A. Raut. My thanks are due to all of them. Special thanks are due to Sarvashri H.J. Barapatre, R.G. Nagulwar and D.K. Kasbi for preparing the contour plan of the Pauni rampart in record time. It could be completed only due to their sincere efforts.

I record my admiration for the work done by Shri N.K.S. Sharma, who contributed in more ways than one in bringing out this report besides typing out the entire manuscript with great patience and commendable accuracy.

Other than the members of the Excavations Branch (I), I received assistance from Dr. M.I. Quddusi, Superintending Epigraphist and Shri G.S. Khwaja, Senior Epigraphical Assistant of the Epigraphy Branch, Nagpur, in deciphering the Bahmani and Maratha coins. I am grateful to Dr. V.R. Bhamburkar, Professor and Dr. O.N. Ladukar, Assistant Professor, Department of Anatomy, Veterinary College, Nagpur for studying the bone samples collected from excavations. Likewise, I also received help during our camp days at Pauni from Dr. Vijay M. Lanjewar and Shri Manohar Laxmanrao Mitkari. My thanks are due to all these persons.

I am greatly indebted to late Prof. S.B. Deo and Shri Jagat Pati Joshi, the former excavators of the site for their meticulous reporting of the site which helped me in formulating the objectives for the present field work.

Finally, I must record my sincere gratitude to Shri Ajai Shankar, IAS, Director General and Shri S.B. Mathur, IAS, Additional Director General for their keen interest in bringing out this Memoir. I also acknowledge my thanks to Sarvashri B.M. Pande, C. Dorje, Arundhati Banerji, Achyutanand Jha, Alok Tripathi of the Survey and Jitendra Nath of the National Museum who took personal care of various aspects of publication at every stage of printing.

AMARENDRA NATH

Vijayadashami
11th October, 1997
New Delhi

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LIST OF ABBREVIATIONS

A.I.	*Ancient India*
A.R.A.S.I.	*Annual Report of Archaeological Survey of India*
B.D.C.R.I.	*Bulletin of Deccan College Research Institute, Pune*
E.I.	*Epigraphia Indica*
J.A.S.I.	*Journal of Anthropological Society of India, Bombay*
J.E.S.I.	*Journal of the Epigraphical Society of India*
J.N.S.I.	*Journal of Numismatics Society of India, Varanasi*
J.R.A.S.	*Journal of Royal Asiatic Society, Bombay*
L.K.	*Lalit Kala, Bombay*
NIDHI	*Journal of Indian Coin Society, Nagpur*

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CHAPTER I

INTRODUCTION

Since independence, one of the major problems before the Indian archaeologists was to bridge the hiatus between the Harappan civilization and the cultures of the early historical period. However, during these years, some integrated field-work in various potential archaeological zones have reasonably narrowed down the gaps of this 'Black Millennium' specially in Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh and Maharashtra. Whether this could be done so in the Vidarbha region was the question before the archaeologists. Sustained field-work in the Wardha-Wainganga Valley of eastern Vidarbha, which concerns here, has produced an archaeological chronology concomitant to the adjoining area of Maharashtra. This has brought to light a continuous chronology right from the mesolithic age to the early historical period.[1]

It has been observed that the archaeological scenario in the eastern Vidarbha changes its complexion with the break through in iron technology. The expansion of iron technology had led to the exploitation of iron ore reserves, timber and mineral wealths and reliance on fertile arable plains. Production of iron objects and larger yield of crops resulted in better living conditions which in turn led to tradings of the surplus and thus in the ultimate analysis probably contributed to the newly emerging early historical settlements not only in Vidarbha but elsewhere in India.

Among the early historical urban centres of the eastern Vidarbha, mention may be made of sites like Kaundinyapur,[2] Paunar,[3] Pauni,[4] and Adam.[5] Of all these sites the archaeological potentiality of Pauni was witnessed during the field seasons of 1968-69 and 1969-70, which provided further scope for wider investigations for tracing the role it had played in the course of interaction with other urban centres situated on the trans-Vindhyan and trans-peninsular trade routes. The present report is on the findings of the fresh investigation carried out in 1994.

A. THE SITE AND ITS ENVIRONS

Pauni (79°39'E, 20°48'N), situated on the right bank of the perennial Wainganga, one of the most sacred rivers of Vidarbha, is the sub-divisional headquarters of Bhandara District of Maharashtra. It lies about 85 km south-east of Nagpur and 50 km south of Bhandara and is approachable from both the destinations by the regular state transport facility (fig. 1)

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[1] *Indian Archaeology - 1988-89 —A Review* (1993), pp. 50-62.

[2] M.G. Dikshit, *Excavations at Kaundinyapur*, Bombay, 1968.

[3] S.B. Deo & M.K. Dhavalikar, *Paunar Excavation (1967)*.

[4] S.B. Deo & J.P. Joshi, *Pauni Excavation (1969-70)*, Nagpur, 1972.

[5] Amarendra Nath, "Adam - An index to Vidarbha Archaeology", *New Trends in Indian Art and Architecture*, Felicitation to Dr. S.R. Rao, on his 70th Birthday, (ed.) N.C. Ghosh and B.U. Nayak, Panaji, 1992, pp.69-79.

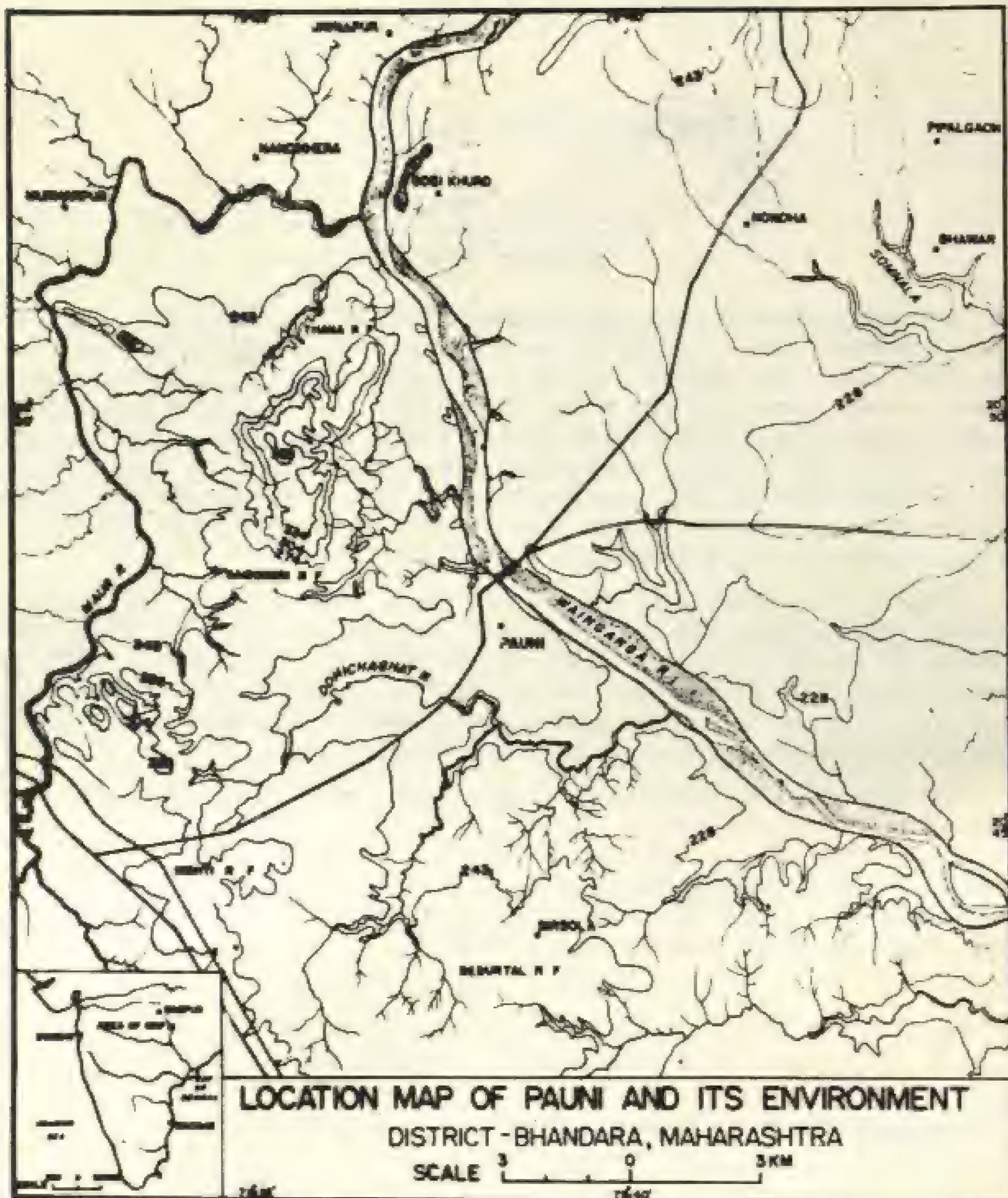

LOCATION MAP OF PAUNI AND ITS ENVIRONMENT
DISTRICT - BHANDARA, MAHARASHTRA
SCALE 3 0 3 KM
PAUNI
SODI KHURD
228

Fig. 1

The site lies on the south-eastern part of the 'Nagpur plain', of which, surface is largely eroded. Being on the right bank of Wainganga its elevation is higher and the steep river bank bounds it. In contrast, the left bank (locally known as 'chaura') has left a wide expanse of an alluvial plain with occasional gullying made through flooding. However, during the summer, the water flow is along the right bank and normally remains fordable. As regards the topography of right bank, specially the area between Maur river and Wainganga river, the land is high in the middle, rising about from 243 mm contour. From this spine-like flat ridge, the ground slopes towards east and west till arrested by the courses of Wainganga and Maur rivers. A good number of rivulets originate from the ridge, flowing east and west, and terminate in the two rivers.

There are few interlinked spurs and uplands, fairly wooded, like Thana, Gaidongari, Nisthi and Bedurtal, encircling Pauni from north, west and south sides. These elevated contours form a crescent and offer a large catchment area to seasonal brooks and streams meandering in the saucer-like depression at south-west of Pauni. Resultantly, it enriches the moisture retaining capacity of surrounding arable land. On the other side of the upland flows Maur river, which initially flows northward but slightly up of Mahurpur take sharp turn to east and empties into Wainganga at Ghat Umri. It passes through forest-clad track known for its natural resources.

The arable soil coverage in the vicinity of Pauni has been classified into three important types viz., (a) *kanhar* (alluvial), (b) *morand* (coarser) and (c) *sihar* (reddish yellow soil). These types of soil provide a superior double cropping pattern covering rice, wheat, pulses and jowar cultivation. Such a rich tract had always attracted mankind eversince the first farmers arrived in this setting.

In the ecologically viable setting lies a number of archaeological sites of Mesolithic, Chalcolithic, iron and early historic periods. Most of the Mesolithic sites are open air sites dispersed in the northern uplands of Pauni towards the right side of the Wainganga. In contrast the protohistoric and early historic sites are distributed on either sides of the river and in all probability these sites while interacting with each other formed an exchange net-work which gave rise to economic prosperity to the region as a whole and Pauni in particular.

Reverting to the site proper, the commanding view of the medieval fortification built over the remnants of ancient rampart, provides a glimpse of its grandeur (pls. I - II). It has a maximum height of about 23 m at the top of the medieval battlement towards the south -western corner (fig. 2). It is in dressed stone masonry and seems to have been left incomplete. It consists of bastions and battlement running north-south, 350 m in length while its east-west extension measures 13 m. It stands over the residue of an U-shaped rampart open towards the river side. The artificial ramp together with steep natural barrier of the river bank forms into an irregular quadrilateral of which no two sides are parallel, a ramification of trapezium. The rampart may be assigned to the category of *jala-durga* and its parallel may be seen in the Ikshavaku stronghold at Nagarjunakonda situated on the right bank of Krishna.[1]

The inner portion has remained unsurveyed, yet the east-west direction of a *nullah*-flow across the rampart suggests a gentle slope more towards east than north. Towards the river side, there are a number of temples and ghats of dressed stone masonry attributed to medieval times. Among the lot, Diwan ghat and Murlidhar temple are better preserved specimens. Between these two edifices, a

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[1]*Indian Archaeology-1957-58 —A Review* (1958), pp. 5-9, Fig. 4; *Indian Archaeology-1958-59 —A Review* (1959), pp. 8-10, Fig. 4.

PAUNI: 1994

DISTRICT-BHANDARA, MAHARASHTRA
CONTOUR PLAN OF RAMPART

SCALE 100 0 100 200M

FIG. 2

medieval fortification attributed to the Gaolis[1] lies in shamble. The gateway and one of the walls of the fort are still standing. Conspicuously the plan of the defences is a miniature version of the ancient rampart discussed above. The possible reason behind repeating an analogous plan during the medieval period remains unexplained (fig. 2).

In the vicinity of fortress a number of archaeological sites have already been documented. To the immediate south of the rampart lies the stupa relics of Jagannatha tekadi, while further south of it lies another *stupa* remains of Chandakapur. The remains of Hardolala tekadi lies west of the fortification. All these remains have fully been studied and reported. Apart from this on the other side of the Wainganga scattered remains of the early historical period, at a place called Ghoda ghat, have been reported.

The above discussion highlights a favourable geographical setting, congenial to any human settlement at the site. It explains why the settlements at Pauni have survived from pre-Mauryan times to this date even after it faced man-made or natural calamities.[2]

B. PREVIOUS WORK

As regards the earlier archaeological notices of the site, it was Henry Cousens who listed the site almost a century ago.[3] Subsequently, in the first quarter of the present century, Sir John Marshall took a note of an imposing fort wall of medieval times.[4] On similar lines, in the following year, Hargreaves also made a reference to the same fortification while confirming its protection.[5] All the above notices were restricted to the observation on the fortification of the medieval times.

To G.C. Chandra, the then Assistant Superintendent of the Survey, has to be assigned the credit of initiating the study of antiquarian remains at Pauni, apart from highlighting the stupa relics at the site. His report embodied the archaeological potentialities of the stupa sites and Ghoda ghat area. Besides this, the single line inscription he noticed at Hardolala tekadi was later published by Mirashi.[6] It recorded the establishment of a *pādukāpatta* by Bhagadatta, the king of Bhara family. Chandra's discovery of the stupa relics glimmered for long in isolation, though diverse antiquarian relics were reported from time to time from the site and featured in various research journals.

After a brief lull, Mirashi had the opportunity of publishing a short note on an inscribed coin of king Dimabhaga[7] which was later re-read as Damabhadra.[8] Thereafter he published a pillar

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[1]*Central Provinces District Gazetteers, Bhandara District*, 1908, p. 220.

[2]The prosperity of the town invited the attacks of the Pendharis thrice in the late medieval days. Lawrence has given a description of these attacks in his *Settlement Report of 1867*, para 68.

[3]Henry Cousens, *Antiquarian remains in the Central Provinces and Berar*, Calcutta, 1897, p. 24.

[4]Sir John Marshall, *Annual Report of the Archaeological Survey of India, 1926-27*, Calcutta, 1930, p. 241.

[5]H. Hargreaves, *Annual Report of the Archaeological Survey of India 1927-28*, Calcutta, 1931, pp. 37, 192.

[6]V.V. Mirashi, "Pauni Stone inscription of the Bhara king Bhagadatta", *E.I.*, 24, pp. 11-14.

[7]V.V. Mirashi, "A coin of king Dimabhaga", *JNSI.*, Vol. IV, pp. 9-10.

[8]A. M. Shastri and C.S. Gupta, "Note on a coin of Damabhadra from Pauni", *JNSI.*, Vol. XLV, pp. 107-111.

inscription attributed to Mahakshatrapa Rupiamma, discovered in the course of digging a field in the year 1964.[1] The discovery became significant in its own way as it established a Kshatrapa connection to the site. Shortly after this valuable discovery another significant cache from the site, the copper plates of the Vakataka king Pravarasena II, was brought to light. It was first edited by Kolte[2] and later, Shastri offered some valuable comments.[3]

Subsequently, S.R. Rao, the then Superintending Archaeologist of the Excavations Branch, Nagpur explored the area and reported some new finds which included inscription on a coping stone, fragmentary *yaksha*, inscribed railing pillar reliefed with human figure in relief and a terracotta bangle.[4] These valuable discoveries in quick succession prompted the Archaeological Survey of India and Nagpur University to take up excavations at three stupa sites in the year 1968-69 and 1969-70 under the joint leadership of Deo and Joshi.[5] Their achievements made in the course of excavations and the report compiled in a record period of time were of immense help in planning and execution of the present excavation.[6]

Even after the publication of the excavations report, the antiquities of Pauni continued to attract researchers in the field. Jamkhedkar surveyed the *Garuḍa stambhas* of Pauni which depicted the incarnations of Lord Vishnu.[7] Another interesting survey of the carved panels from Jagannatha tekadi was carried out by Meshram to highlight the socio-economic aspects.[8] Not long after this appeared the toponymical issue of the site wherein the plan of ancient rampart was published for the first time.[9] In subsequent publications, reports on the varieties of antiquities discovered at Pauni stimulated the scholars for more investigations. In the process, the antiquities of different types analysed were images of Lajja Gauri[10] and torso of a *nāyikā*[11] together with a few decorated querns with legs.[12]

C. GENERAL PROBLEM

Collaborative efforts of two successive field-seasons (1968-70) by Prof. S.B. Deo, the then Head of the Department of Ancient Indian History, Culture and Archaeology, Nagpur University and

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[1] V. V. Mirashi, "A pillar Inscription of Mahakshatrapa Rupiamma from Pauni", *E.I.*, 37, 1968, pp. 201-203. The inscription has already been noticed in *A.R. Ep., 1964-65*, No. B346 and introduction p. 7.

[2] V.B. Kolte, "Pauni Plates of Pravarasena II", *E.I.*, 38, 1969, pp. 53-56.

[3] A.M. Shastri, *Early History of the Deccan Problems and Perspectives*, 1987, p. 56. The same occurs under "New Vakataka Inscriptions", *The Age of the Vakatakas* (ed.), A.M. Shastri, New Delhi, 1992, pp. 237-238.

[4] S.R. Rao, *Archaeologia*, no. 32, Sommaire, January-February, 1970, pp. 56 ff.

[5] *Indian Archaeology 1968-69—A Review* (1971), pp. 14-16; *Indian Archaeology 1969-70—A Review* (1973), pp. 20-21.

[6] Deo & Joshi, *op. cit.*, 1972, pp. 17-24.

[7] A.P. Jamkhedkar, "The Garuda-Khambs of Pauni", *Archaeological Congress and Seminar Paper* (ed.), S.B. Deo, Nagpur, 1972, pp. 13-20.

[8] Pradip Shaligram Meshram, "Life as depicted in the Pauni Sculptures", *Indica*, 23, pp. 39-50.

[9] Amarendra Nath, "Toponymy of Asaka and Asika", *Indica*, 27, p. 95.

[10] Amarendra Nath, "Lajja Gauri and her possible genesis," *Lalit Kala*, 25, pp. 42-47.

[11] C.S. Gupta, "An Unique Torso of Sun from Pauni," *Sri Ramachandrika* (ed.) A.V.N. Murthy & I.K. Sarma, Delhi, 1993, pp. 267-272. Editors have not accepted the identification, it is a torso of a *nāyikā*.

[12] C.S. Gupta, "Symbols found on legged querns", *Indian Coin Society News letter*, No. 11, Bombay, 1991, pages not marked.

Shri Jagat Pati Joshi, the then Superintending Archaeologist, Excavations Branch (I) of the Survey had uncovered stupa relics at three different mounds at Pauni locally known as Jagannatha tekadi, Chandakapur tekadi and Hardolala tekadi. Of all the finds from these three mounds, the remains at Jagannatha tekadi deserve special mention with regard to its general layout and excellent workmanship. These were the landmark links between Bharhut and Sanchi on one hand and Amaravati on the other. Such a long distance interaction of art and artisans could be possible by no other means but through contemporary trade and traders. A number of donative and label inscriptions over the architectural members of the stupas at all these Buddhist centres testify to the contributions of merchants and guilds. The donative and label inscriptions recovered at Jagannatha tekadi bore reference to this effect.

In this accomplished backdrop of 1968-70 field seasons, it became all the more important to excavate the contemporary settlement responsible for construction of such a magnificent stupa complex and sustaining its existence almost for a period of five centuries. With this problem in mind the objectives of the present field-season were set at the site which uncovered a cultural sequence concomitant to what was noticed at Jagannatha tekadi, besides objects determining interaction with contemporary urban centres.

D. SCOPE OF THE WORK AND A SUMMARY OF THE RESULTS

After having achieved the objectives of exposing the stupa relics at Pauni in the successive field seasons of 1968-69 and 1969-70, it became all the more important to take up excavation in the habitation area enclosed by a rampart. Incidentally, the deposit within the rampart was yielding antiquities and pottery coeval with those reported earlier from the stupa cuttings.

At this juncture two probable questions arose, viz., (a) ascertaining the chronology of the habitation area and (b) correlating it with the different phases of construction of the rampart. With this objective, two cuttings were laid, one in the habitation area (PNI. 1) and the other across the rampart connecting a portion of the habitation as well (PNI. 2).

In all, five different periods of occupations were noticed at the site.

Period I.— Extending to an average thickness of 55 cm above the natural soil was the deposit of pre-Mauryan times noticed in the cuttings of A5 to A8 of PNI. 2. It was characterised mainly by the occurrence of black and ochre painted red ware, black and red ware, and its plain variants. The design-element largely consisted of linear patterns of varying thickness, generally occurring on the shoulder portion of vases (fig. 10). The shapes met with were limited in number comprising bowls and basins (fig. 11). Among the miscellany of less abundant finds were : beads made of jasper, agate and terracotta and arrowheads of iron and bone.

A noteworthy feature of this period was the construction of a low (2.45 m) but wide (11.90 m) rampart; revealing that the defences came into existence with the first occupation at the site (fig. 3).

Period II.— Attributed to the Mauryas, the period witnessed a marked change in the lives of the occupants of the site. Though the characteristic ceramic industries of the preceding period continued, a significant development was the introduction of the delux variety of the Northern Black Polished ware

(fig. 13). Apart from this a silver punch-marked coin was also reported from this horizon. Both these diagnostic finds point to an organised Mauryan expansion over the region. The site gained the status of a major garrison settlement encompassed by one of the largest defences of that era. It consisted of massive build up of laterite gravel, reaching a maximum height of 8.25 m and width of 48.90 m. The process of making the rampart by systematic cutting of earth along the outer toe-line produced the moat, measuring approximately 55 m wide and 8 m deep.

The habitation area (PNI. 1) revealed an oblong mud walled house with an improvised porch. It was paved with stone and had a provision of built in bench (fig. 4). The other remains were in the form of kiln and *chulhā* (fig. 5).

Antiquarian remains showed a variety of beads of semiprecious stones, ivory and terracotta, bone comb, points and copper bangle.

Period III.— It witnessed an overlap in the ceramic traditions of the preceding period. However, it yielded terracotta human figurines, produced by the single mould technique in the typical stylistic traditions of Sunga period. Of these, three representative specimens were bust and torso fragments of mother goddess and *mithuna* (fig. 30, 1 to 3). Some of these were reminiscent of Ahichchhatra terracotta figurines of sub-type (i).[1]

Among the ceramic tradition mention may be made of a Northern Black Polished ware sherd of a flat based dish bearing a wire-sized perforation for rivetting purpose. It showed the precious nature of the ware which was used even after rivetting the two broken ends.

Of the structures, there were evidences of mud floors, bin platforms and U-shaped *chullah* (fig. 6) and ring wells (fig. 7).

Period IV.—A notable feature of this period was the brick fortification attributable to the Satavahana times. The ceramic tradition in which some medium to fine varieties of red slipped ware of thin section were also noticed (fig. 16). Apart from this, kaolin wares of both painted and plain varieties were noticed (fig.17). Majority of these pot-sherds bore fine white slipped polish. Design elements, on the shoulder portion, were incomplete vertical strokes and broom-like ends. Apart from this, decorated wares showing geometrical and floral motifs were also found. These decorations were achieved by incision, cording, stamping and applique methods.

This period has yielded a rich haul of antiquities in gold, silver, lead, copper and iron, besides stone, terracotta, glass, ivory and bone. It included, to mention a few, talismans of gold and copper (fig. 23, 1 and 2), lead spools (fig. 26, 1, 2 and 4), terracotta figurines of solid and double mould varieties (figs. 30 and 31), beads of silicious material (figs. 28 to 29), implements and other household items of iron (figs. 24 and 25), kohl-sticks, pendants, beads and bangles of ivory (figs. 33 and 34), casket of bone, *kundikā*-type of vessel of glass and a few sculptured stone finds.

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[1]V.S. Agrawala, "Terracotta figurines of Ahichchhatra, District Bareilly, U.P." *Ancient India*, No. 4, pp. 110-112; pl. XXXII, Fig. 1-2.


Oblong houses of stone and burnt bricks were noticed (figs. 8 and 9). There were noticed two phases of construction of House-3. Juxtaposed ring-wells and brick-wells were found in overwhelming number in a limited area of excavation. All were exposed on plan, but brick-well 3 was exposed substantially upto the natural soil, of which the last course could not however, be reached.

In the rampart cutting some special features in the form of construction of parapet wall and brick rivetment on its outer scarpment were noted. These were probably meant for arresting seasonal erosion. The above brick-work covering over a large area of the rampart offered height as well as a strong face to withstand battering. The expenditure on these features would have been rather high. This points to some strong administrative set up resting on sound finance.

An inscribed seal (pl. XLIII A), reading *chuladenna*, is one of the significant finds of this horizon. Besides the occurrence of Satavahana and Kshatrapa coins, the period also yielded punch-marked, cast and die-struck coins. The inscribed varieties of punch-marked coins, attributed to Ayadatta and Bhadra were unique (pl. XXXV).

Period V.— Owing to the laying of trenches in a lower plain and also due to later disturbance in the area of PNI. 2, nothing substantial could be recorded from this horizon. However, two important structures attributed to the period, were the cyclopean wall and a well-5, both built out of re-used materials. The cyclopean wall, added over the remnants of brick fortification of the Satavahana age, showed some re-used architectural members in its construction. In the process, it further gained an additional height of 1.10 m (pl. VII). The well-5 of re-used bricks was traced only upto forty courses. The antiquities encountered from the secondary deposit of the period were of mixed chronology, however, some surface collections in the form of sculptural art were attributed to this period. It would not be out of place to record that earlier cache of Vakataka copper-plates of Pravarasena II was made quite close to the present cuttings of PNI. 2.




PAUNI : 1994
DISTRICT - BHANDARA, MAHARASHTRA
SECTION ACROSS THE RAMPART AT PNI-2
SCALE 1 0 1 2 3 4M
A8
CYCLOPEAN WALL PERIOD V
PERIOD V
PLANO-CONVEX COPING BRICKS, PERIOD IV (RESTORED)
PERIOD IV
APRON
BRICK PARAPET WALL PERIOD IV
APRON
BRICK REVETMENT PERIOD IV
A9
A7
PERIOD-II
RING WELL
1
2
PERIOD-I
TALUS PERIOD IV
A6
A10
TALUS PERIOD IV
LEGGED QUERN
SOUTH
5.5M WIDTH & DEPTH
MOAT
8M
NATURAL SOIL
NORTH
PERIOD
V
IV
III
II
I
2
3
4
5
6
7
LEGEND
— COPPER COIN OF DAMABHADRA
— COPPER COIN OF SATAKARNI
— CAST COPPER COIN TAXILA TYPE
— SILVER PUNCH MARKED COIN
— SUNGA TERRACOTTA
— BONE COMB
— STONE BEAD
— IRON ARROW HEAD
— BONE ARROW HEAD

CHAPTER II

CUTTINGS

A. HABITATION AREA (PNI. 1)

In order to ascertain the cultural sequence, the trenches could be laid, unfortunately, fairly away from the area where the potentiality of the deposit was suspected more; the reason being the present day habitations occupying almost all those points. The shift in laying the trenches on a lower plain had erased any hope of getting a total sequence of the site ranging from the earliest time to the medieval days.

The trenches of PNI. 1 were laid in cadastral or revenue Survey No. 454 and the area subjected to excavation measured 35 ×20 m (pl. III). The natural gravel was reached in three quadrants (C1/3 and B2/1 & 2) at an average depth of 1.75 m. As suspected, the cutting did not represent the Vakataka and Medieval strata. Likewise a thin deposit of painted and plain pottery below the Mauryan horizon, noted in PNI. 2 remained unnoticed here. Otherwise it yielded an uninterrupted sequence of cultures originating with the imperial Mauryas and terminating with the end of Satavahana rule.

Immediately overlying the natural soil was a 55 cm thick homogeneous deposit of varying compactness. It consisted of layers 6 and 5 and was attributed to the imperial Mauryas (Period II). Layer 6 (thickness 20 cm) was an admixture of alluvial clay and ash while layer 5 (thickness 35 cm) contained ash and streaks of charcoal and was less compact. Both these layers reported painted and unpainted varieties of red ware, besides the diagnostic Northern Black Polished Ware and silver punch-marked coin.

Layer 4 (thickness 45 cm) represented the Sunga-Bhadra horizon (Period III). The deposit was semicompact in nature as it contained more ash and charcoal. Apart from an overlap in the pottery content, the deposit displayed structural remains in the form of circular mud-platforms, floors, *chulhā* and post-holes.

Layers 3 to 1, indicated by a homogeneous deposit of brown soil, were atributed to Period IV. Layer 1 was largely denuded and disturbed due to recent ploughing activity, therefore it yielded antiquities of mixed nature. Other two layers 3 and 2 were composed of semi-compact brown clayey earth mixed with stone, tile, bones, red ware and kaolin ware.

B. RAMPART AREA (PNI. 2)

A cutting across the southern wall of the rampart (Revenue Survey No. 555) connecting a portion of the habitation (Revenue Survey No. 556) was undertaken with a view to examine the phases of construction and its correlation with different periods of occupation. The pegs were fixed in the north-south orientation covering a length of 100 m out of which quadrants of A2/1 and A5/4 to A10/4 were

opened. Trench No. A2/1, laid one metre above the surrounding plain was subjected to excavation. It would not be out of place to mention that about thirty metres east of this cutting, the Vakataka copper plates were recovered. Unfortunately the upper deposit of over a metre was largely disturbed, reducing further the hope of probing into the Vakataka horizon.

The transverse looking cutting across the southern wall of the rampart partially connecting the habitation in A5/4 brought to light the sequence of cultures from the pre-Mauryan period to the Vakataka period. The stratification of trench No. A5/4 became the index as it showed the habitation layers connecting the rampart (pls. IV-V; fig. 3).

Period I represented by layer 7 (thickness 55 cm) was assigned to the pre-Mauryan era. The deposit was predominantly ash mixed with streaks of charcoal and alluvial clay. It yielded painted and plain varieties of black and red and red ware. In addition to the antiquities associated with this period the first rampart at the site was noticed in the cuttings of A7/1 and 4. Built over natural gravel, the rampart was a heap of gravel mixed with ferruginous clay and it measured 2·45 m in height and 11·90 m in width.

Period II represented by the layers 6 and 5 (thickness 35 cm each) was attributed to the imperial Mauryas. The deposit of both the layers was homogenous in nature. It was loose to semi-compact ash, mixed with streaks of charcoal and ferruginous clay. An overlap of ceramic traditions of the preceding period was noticed; however occurrence of the diagnostic Northern Black Polished Ware and silver punch-marked coins determined the chronology of the horizon. The period witnessed the construction of a huge rampart over the top of layer 7. It was constructed out of lateritic gravel of yellow and red colours, occasionally mixed with pottery. It measured 8·25 m in height and 48·90 m in width.

Period III represented by layer 4 (thickness 55 cm) was attributed to the Sungas. The sediment of layer 4 was of ash-brown colour and semi-compact in nature. It was mainly composed of ash, charcoal and brown soil. In the cuttings of A6/4 two ring-wells were noticed, which showed that during this period people started occupying the inner slopes of the rampart, it was either due to population exodus or degeneration in the local administration.

Period IV represented by layers 3 and 2 of which the former was 40 cm thick while the latter was 55 cm. The sediments were composed of semi-compact homogenous brown clayey soil mixed with charcoal, ash, brick-bats, tiles, stones and pottery. The cuttings between A7 and A9 witnessed a change in the make-up of the defences. At the top, a box-like burnt brick parapet wall built in recessed order with its base paved on either side with brick apron (pl. VII), while its external slope had brick revetment. In this slope a dislodged plano-convex brick was noticed which might have existed as an encasement to the parapet wall serving as coping brick course (pl. VI), thereby raising the total height of the rampart to 9·05 m.

Period V represented by layer 1 which was composed of dark brown soil of semi-compact nature. In trenches A6 and A7 the deposit laid against the cyclopean wall was secondary in nature as it yielded Satavahana pottery and antiquity. Whereas the deposit of layer 1 in A5/4 appeared primary. It concealed a well of reused bricks (pl. IV).

In the medieval period the complexion of the rampart on the western side was completely changed by raising a high profile masonry wall with battlements and bastions.

CHAPTER III

CHRONOLOGY

Let it be repeated here that the chronology arrived in the course of earlier excavations has been broadly reconfirmed. For computing the chronology, more weightage is given here to numismatic data over other evidences. However in dating the Period I and the Period V, besides stratigraphy, relative evidences have also been taken into account.

Period I

The occurrence of black and ochre painted red ware and black and red ware afford some workable parallels with other sites of the region. A number of iron age (Megalithic) sites in the region have yielded such design-elements from its latter levels, coeval with the one reported here. Incidentally, this horizon has been succeeded by the Mauryans at a number of sites of this region. Hence, relatively, there may not be any hesitation in terming this period as pre-Mauryan. It would be appropriate to assign a time bracket to this period from *circa* sixth century to fourth century B.C.

Period II

The occurrence of a silver punch-marked coin and a few Northern Black Polished Ware from this horizon has left no doubt in attributing this period to the imperial Mauryas. It could safely be dated to *circa* fourth century to second century B.C.

Period III

Besides the continuation of Northern Black Polished Ware of the preceding period, the discovery of one copper cast coin of Taxila type and a few typical single mould terracottas in Sunga style have become the governing factor in determining the chronology of the period. The distribution of Sunga terracotta art in the Wainganga Valley was observed for the first time.

The view about this period being coeval with the Sunga-Bhadra period, reinforced by the occurrence of Bhadra coin in the successive cuttings of the pre-Satavahana and post-Mauryan horizons at Adam, has been established beyond doubt. It has generally been accepted by the scholars that the Bhadras of the Wainganga Valley, if not concomitant, were atleast late contemporary to the Sungas[1]. However, the Bhadra coin at Pauni has not occurred in the pre-Satavahana context but a number of these

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[1]Amarendra Nath, "Some Observations on the Chronology of Bhadras and Mitras in Vidarbha", *JNSI.*, Vol. LII, pp. 48-57.

have been found distributed in the Satavahana horizon. It shows that the Bhadra coins remained in circulation even after the fall of Bhadra rule. Thus, taking into consideration the regional factor, it may be reasonable to call the horizon as Sunga-Bhadra and a time bracket of *circa* second century to the first half of first century B.C. could be assigned to this period.

PERIOD IV

Layers 3 to 1 of the habitation area have yielded a number of Satavahana coins associated with the other coins of punch-marked, cast and die-struck varieties. Evidence of a handle fragment of an Amphora, earlier reported at Paunar from the same horizon, has established knowledge of the Mediterranean connection of the site.[1] At the same time the discovery of a pillar inscription of the Mahakshatrapa Rupiamma has created an impression of their hegemony over the region. The wide distribution of their silver portrait coins and the coin moulds[2] in the Wardha-Wainganga Valley has further corroborated this fact.

Under these circumstances there may not be any hesitation in calling this horizon as Kshatrapa-Satavahana, assignable to *circa* second half of the first century B.C. to the third century A.D.

PERIOD V

As noted earlier, the period has been represented only in the rampart cutting (PNI. 2) preceded by the Satavahanas. Of this period there are two structural remains—one of stone of public works type and the other of brick of domestic type yet both show a common factor of utilization of reused materials in the construction, a phenomenon generally noticed in the Gupta-Vakataka age. Incidentally, it may not be out of place to record that during this period, utilization of fresh burnt bricks was largely confined to religious edifices. This fact has been verified at a number of excavated sites of upper India and also at sites situated in the Wainganga Valley. On the basis of these relative evidences this period has been attributed to the Vakatakas and safely be dated to *circa* third century to sixth century A.D.

Further numismatic data obtained from surface collection at the site has helped in pushing forward the history of the site to eighteenth century A.D. In turn, it helped in fixing the chronology of the gorgeous looking western fort wall to late medieval period which was built over the residue of cyclopean wall of the Vakataka period.

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[1] Deo & Dhavalikar, *op. cit.*, 1968, pp. 3,41,48,115.

[2] Amarendra Nath, "A Kshatrapa coin mould from Arambha", *JNSI.*, Vol. LIV, pp. 60-61.

CHAPTER IV

STRUCTURES OF VARIOUS PERIODS

In spite of the limited nature of the excavation, it was gratifying to note that the structural remains in some form or the other were brought to light from all horizons. The remains were broadly classified as: (a) structures of public works type which covered various phases of constructioh noticed in the rampart cutting and (b) structures of domestic utility, which further offered some sub-types, identified on the basis of its function and occupation.

Period I.— The structural remains of this period fall in category (a) which witnessed the construction of the first rampart at the site. Supposedly, it was built with a view to demarcate the settlement of the first settlers at the site. It was built out of laterite occasionally mixed with dark brown clay chunks. Built over the natural gravel, it measured 2·45 m in height and 11·90 m in width at base (fig. 3). Building of rampart out of the same type material was noticed at Adam in Period III. There at Adam, between the natural soil and the first rampart, a pre-defence occupational horizon existed whereas at this site the rampart came into being with the first occupation.[1]

Period II.— During this period structures of both the categories were noticed. A massive rampart consisting of lateritic gravel of yellow and ochre colours was rammed over the preceding one, thereby gaining a height of 8·25 m and width of 48·90 m at the base (fig. 3). It was built over the top of layer 7 and contained to serve its purpose upto the occupation of the succeeding Period III. Along with the massive rampart, a moat measuring 55 m in width and 8 m in depth was formed automatically in the process of systematic cutting of earth all along the outer toe-line.

Structures of category (b) were in the form of house, floor, kiln and *chulhā*.

House 1 (fig. 4).— In trench No. B1/2, while clearing the sediments of the lower level of layer 4, a stone paved floor enclosed by mud-walls was noticed in the upper levels of layer 5. As it was extending beyond the limit of the present cutting, its actual size could not be determined, but shapewise it had a rectangular plan. There were post-holes of 20 cm diameter, dug within the south and east walls of an average thickness of 58 cm. The two post-holes correspondingly projected outside the east-west wall gave an impression of a narrow entrance of 80 cm width, supported by an improvised porch. In case the entrance was provided in the middle of the southern wall, it would reveal a total span of the wall to be 3·80 m, arrived at by simply adding the wall-span of eastern side of the entrance (1·50 m) with that of the western side (supposedly 1·50 m) together with the entrance-width of 80 cm. The north-south

[1] *Indian Archaeology 1989-90 —A Review* (1994), p.61.

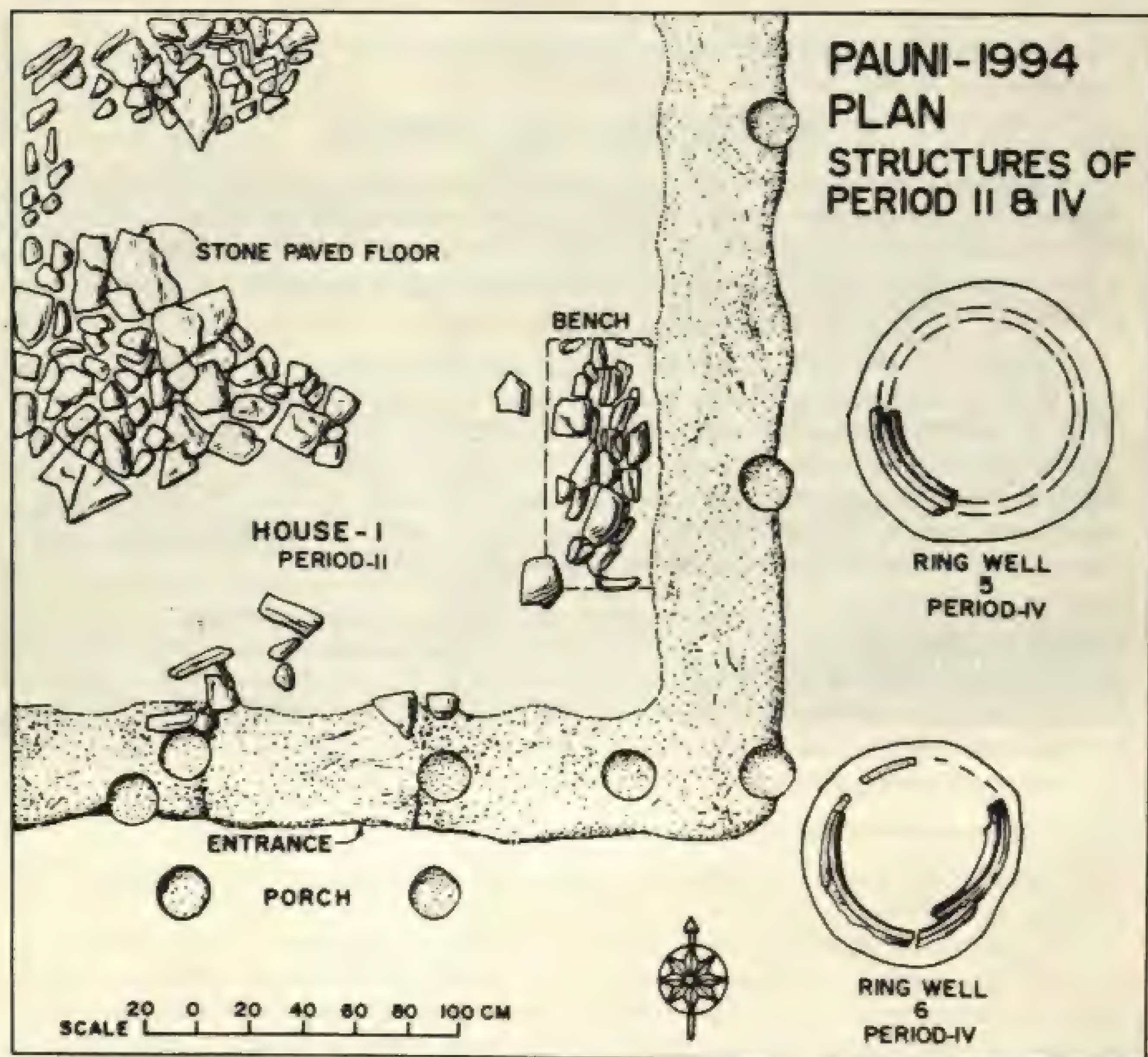

PAUNI-1994
PLAN
STRUCTURES OF
PERIOD II & IV
STONE PAVED FLOOR
BENCH
HOUSE-I
PERIOD-II
RING WELL
5
PERIOD-IV
ENTRANCE
PORCH
RING WELL
6
PERIOD-IV
SCALE 20 0 20 40 60 80 100 CM

FIG. 4

length of the wall measured 3 m. The floor of the house, though well made, had been destroyed at places probably by latter occupants of the site. Above the floor an inbuilt but disturbed bench-like projection was noticed. It had stone reinforcement treated with lateritic gravel and mud.

All these structural details indicate that it was occupied by a well-to-do person of the Mauryan times.

Floor, Kiln-1 and chulhā-1 (fig. 5).— Say seven metres south-east of House-1, a well laid extensive floor of yellow lateritic gravel and mud, measuring 4 × 3.25 m, was noticed. In the eastern half of it an outline of a kiln was traced on plan. It was oriented east-west and measured 1·60 m in length and 1·30 m in width. It was cut in the natural soil, showing clearly the fuel passage followed by a semi-circular fire chamber flanked by vents, one each on either side. The utility of vent was to regulate the temperature of the fire inside the chamber, besides it might have served as working ends for the craftsmen.

To the left side of the kiln an U-shaped *chulhā*, was noticed. It was built over the gravel floor and built out of the same material with an opening of 30 cm width towards east. Its arms, 35 cm thick, did not show any cusp-mark.

Period III.— The structural remains of this period were either of ring-wells or mud floors together with a *chulhā*.

Ring-Wells.— Out of four ring-wells, two were exposed completely (A6/1 of PNI. 2), third was exposed upto thirty rings (C1/3 of PNI. 1) while the fourth in a better condition was exposed to the extent of five rings (C2/2 of PNI. 1).

Ring-Well-1 and 2 (pl. IX; fig. 3).— These were noticed juxtaposed in the rampart cutting A6/4. with two rings of identical diameter of 65 cm, but had varying number of rings set one above the other in cylindrical pits. No. 1 had twenty rings, set sufficiently above the sub-soil water level while No. 2 had twenty-five rings, the base course rested slightly above the natural soil. The two cannot be called draw-wells as there was no sign in the cutting to indicate that at any point of time the sub-soil water level ever reached the lower courses of these ring-wells. Was it used as a barn ? The answer needs more evidence than what is available at present.

Some might consider these as water-closets for collecting rain water for domestic usage. It may not be out of place to note that the potable water was short in supply at this site. Therefore, a number of water reserves were deviced to store water in the vicinity of the site, where as some wells were also dug for specific use.

Ring-Well-3 (pl. X).— It was encountered in C1/3. The upper courses were badly damaged due to later pit activity. After exposing thirty-one courses, further digging was stopped due to sub-soil water. The diameter of the ring-well was 52 cm.

Ring-Well - 4.— To the south of the former was noticed another ring-well located in the south-western to the corner of C2/1. Of all the ring-wells, either of Period III or IV, it was a better preserved specimen and possessed rings of larger diameter (75 cm) than the others.

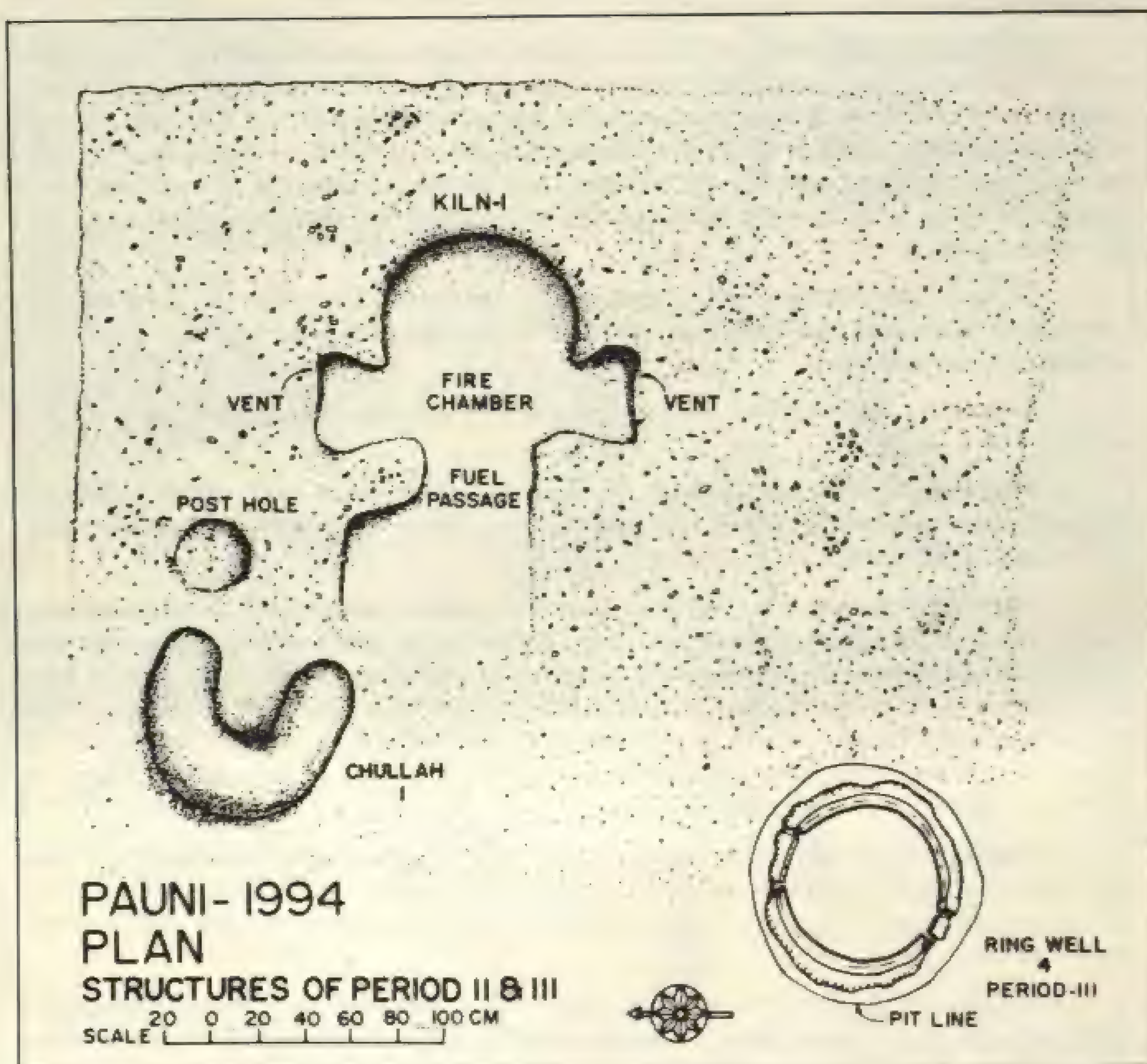

KILN-I
FIRE CHAMBER
VENT
VENT
FUEL PASSAGE
POST HOLE
CHULLAH I
PAUNI - 1994
PLAN
STRUCTURES OF PERIOD II & III
SCALE 20 0 20 40 60 80 100 CM
RING WELL 4
PERIOD-III
PIT LINE

FIG. 5

Bin Platforms (fig. 6).— Four circular mud platforms numbered 1 to 4 (left to right) were brought to light in B1/3. These were arranged in L-shaped alignment in a courtyard and identified as bin platforms. Each one was a perfect circle in plan and prepared out of fine levigated clay of grey colour. No. 1 of 90 cm diameter was smallest of the lot while Nos. 2 and 4 were of 1·75 m diameter. The latter had an elaborate arrangement of post-holes around it for supporting the superstructure of conical shape. Probably it had a thatched roof. A group of two post-holes, projected on the either side, in an alignment, indicate some kind of porch-like projection, similar to the one noted in case of House-1 (fig. 4). Here, the width of the porch was 90 cm. No. 3 of 1.60 m dia had no special feature to record.

Chulhā-2 (fig. 6).— On the western side of the bin platform No. 4, a U-shaped *chulhā* was noticed. It showed a continuity in the formation of *chulhā* from the preceding period. The only difference noticed in the material used in its preparation was the shift from laterite gravel to mud. Its longer axis was 75 cm while the shorter was 70 cm. The fire chamber had an opening towards west and it contained evidences of charcoal and ash. The mud floor on which these platforms and *chulhā* were noticed was quite extensive. Its actual size could not be ascertained as it was extending towards all sides of the trench.

Period IV.— In the rampart cutting of A7/4 and A8/1 and 4 (PNI. 2) a change in the make-up of defences was noticed. It consisted of a brick parapet wall in mud mortar with a course of coping bricks in plano-convex shape (pl. VI). At its base on either side, an apron paving in brick was noticed. Probably this was laid to prevent water seepage and dampness to save the parapet wall. Similarly the outer slope, steeper than the inner, was given a face-lift by brick-veneering in order to arrest erosion. But due to the lack of periodical upkeep, the system did not last for centuries; the talus deposits on either slopes which constituted mostly of bricks were testimony to the nature's vagary (fig. 3).

The bricks specially made for veneering were of two sizes-50 × 50 × 10 cm and 50 × 28 × 9 cm.

Ring-Wells.— Reverting to the structures of the habitation area (PNI. 1) the impressionable fact is that the number of ring-wells excelled other varieties of structural remains. In all ten ring-wells were encountered from various levels of this horizon. All of them were exposed on plan and some upto a few courses. Out of these, ring-well Nos. 5 and 6, 8 and 9, 11 and 12 (fig. 4, 8 and 9) were juxtaposed. Their diameter varied from 60 to 70 cm.

The reason behind having some of these ring-wells in close proximity had something to do with the scarce zone of sub-soil potable water at the site. Till the introduction of overhead tank supply of municipal water, the present village had a tradition of digging juxtaposed wells to meet the need of potable water (pl. XI). Tapping of potable sub-soil water was a matter of chance. Therefore, instead of trying their luck at a distant spot, the occupants preferred to dig the second well by the side of the first.

Brick-Well-1.— The Brick well-1 serving the purpose of a draw well was found in a most damaged condition in A2/1 (PNI. 2), half of the brick work was damaged due to later pit activity (pl. XII). Only forty-five courses of the well could be traced as sub-soil water began to seep at that level. It had 1 m dia while the bricks used were of segmented wedge-shape, looking like the bricks used in voussoir of brick arches.

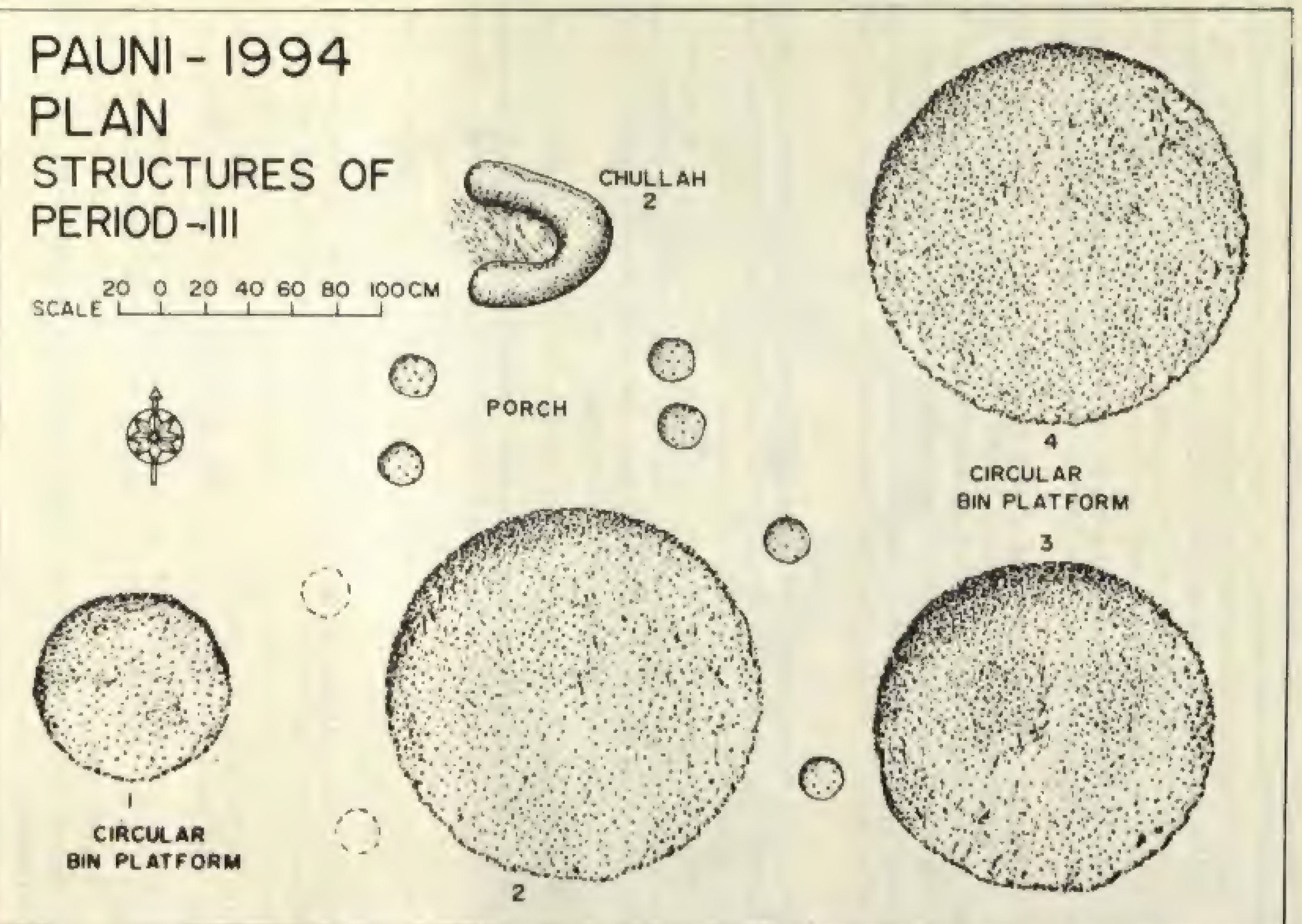

PAUNI - 1994
PLAN
STRUCTURES OF
PERIOD - III
SCALE 20 0 20 40 60 80 100CM
CHULLAH
2
PORCH
4
CIRCULAR
BIN PLATFORM
3
1
CIRCULAR
BIN PLATFORM
2

Fig. 6

Brick-Well-2.— Similar bricks were used in well-2 exposed in C2/1. Of identical dia of 1 m, the special feature noticed in this well was the provision of rectangular brick platform around the well (pl. XIII). A major portion of it was damaged due to latter pit activity. The platform was of single course built on the top of layer 3. Above it, seven courses of the well-head were noticed. The bricks used in the well were of voussoir type, however, the top course was externally bevelled and rounded. Besides distinguishing the well from the surrounding area, the purpose of constructing the parapet (well-head) was two-fold, first to strengthen the upper portion which was generally prone to wear and tear and second, to prevent accidental fall of people and animals.

South of this well two courses each of brick and tile bonding were noticed. On plan it appeared like a drain for the flow of waste-water from the platform of the well to the soak-pit; a bit of testimony to the sense of hygiene of the people of that period.

Brick-Well-3 .— It was noticed in a dilapidated condition in the cutting of B2/2 sealed by layer 1. Having a dia of 90 cm, it could not be exposed beyond 30 courses (pl. XIV).

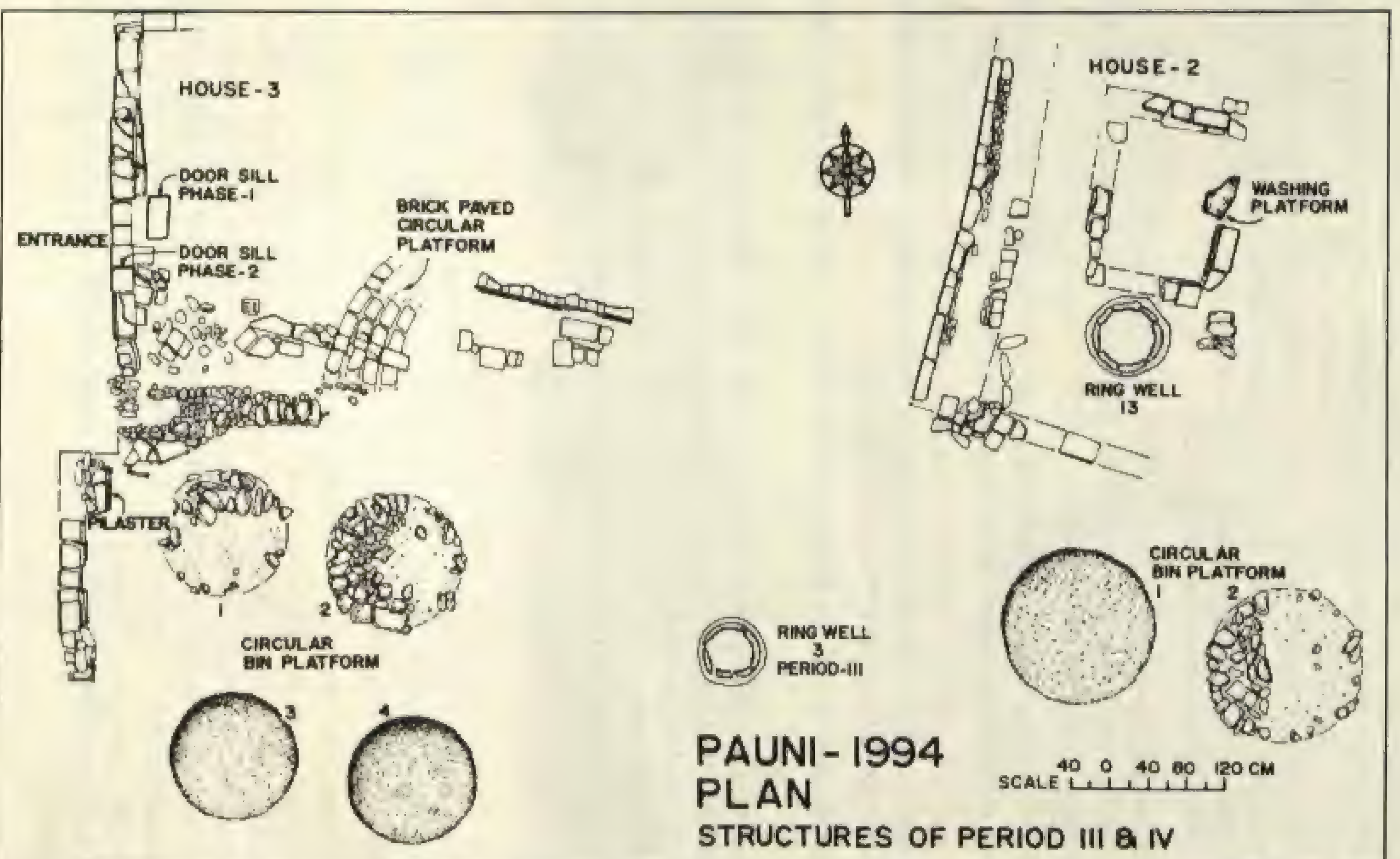
Brick-Well-4.— It was noticed relatively in a better condition but of poor make in the cutting of C2/3, sealed by layer 1. It too had a dia of 90 cm and the bricks used were of ordinary oblong type, coarse and ill fired. It was exposed upto fourteen courses only.

Other structural remains of the period included houses, circular and oblong platforms, kiln and *chulhā*.

House-2 (fig. 7).— Mostly robbed, on plan it showed a small oblong structure close to a ring well (No. 13) enclosed by a contiguous wall. The oblong brick lined structure (2·50 × 1·80 m) might have served as platform or bathing enclosure close to the adjoining ring-well. It also had a provision for washing in the shape of a stone platform measuring 45 × 35 cm. The other wall running north-south (4·10 ×0·80 m) served as an outer wall of this complex. Both inner and outer faces of it were brick lined while the core has pebble-packing in mud mortar. It was apparent from the plan that the well was exclusively for private use as it was enclosed by an outer wall.

House-3 (fig. 7).— To the west of House-2 was situated House-3. It was noticed in the cuttings of C1/1 and 4, and seemed to be rectangular on plan. A major portion was found robbed yet it created an impression of that of a large house. It had brick construction on an exterior while the interior showed random rubble of medium to small size.

There were noticed two phases of construction in a portion of wall running north-south (4·25 m). Between the two phases, other than the nominal raising of floor level, the plan remained unaltered, including the size and location of the entrance. In all there were four courses in the single lined brick wall of lower phase running north-south. A stretcher brick peeping out of the third course was a portion of door-sill projection of lower phase. Subsequently in the upper phase over the same wall, six brick courses were noticed, between these two stages of constructions a clay cushion was provided in order to maintain the horizontality of latter brick courses. The entrance of upper phase was virtually superimposed above the lower phase which measured 80 cm. The floor of upper phase was treated with tiles, bricks and laterite gravel of yellow colour.



HOUSE - 3
DOOR SILL PHASE-1
ENTRANCE
DOOR SILL PHASE-2
BRICK PAVED CIRCULAR PLATFORM
PLASTER
1
2
CIRCULAR BIN PLATFORM
3
4
HOUSE - 2
WASHING PLATFORM
RING WELL 13
RING WELL 3 PERIOD-III
CIRCULAR BIN PLATFORM
1
2
PAUNI - 1994
PLAN
SCALE 40 0 40 80 120 CM
STRUCTURES OF PERIOD III & IV

Fig. 7

After removing the baulk between the quadrants 1 & 4, a partition wall in random rubble was noticed. Its extant length was 2·50 m and width 60 cm. To the south of the junction of the partition wall an extention (2·70 m) of the north-south wall with an offset possibly serving as pilaster was noticed. From the available remains it appeared that this part of the house was possibly open on south-east side which housed a group of four circular bin platforms of identical diameter of 1·55 m. Here, an interesting feature observed in the construction was the cushioning of fine levigated clay of dark grey colour below the random rubble masonry. The special treatment of the base with a particular type of clay could be compared to the insect-proof treatment of the present day.

A couple of similar platforms almost of identical diameter, were noticed at the east of House-2. Initially, the group of four platforms were noticed in good number in the excavations at Adam from the Satavahana horizon and were considered enigmatic and different explanations were thought of with regard to its functions, but none was conclusive. An identical situation was created here when the similar type of circular platforms started occurring from the same horizon. After careful observation from various angles it was decided to identify them as bin platforms. As noted above the special type of clay cushioning below the stone-work might have served as insect-proof shield to save the stored contents of the overhead bins from damage by insect attack. However, no scientific analysis of the clay used there was done, hence the purpose of these clay layers still remain an enigma.

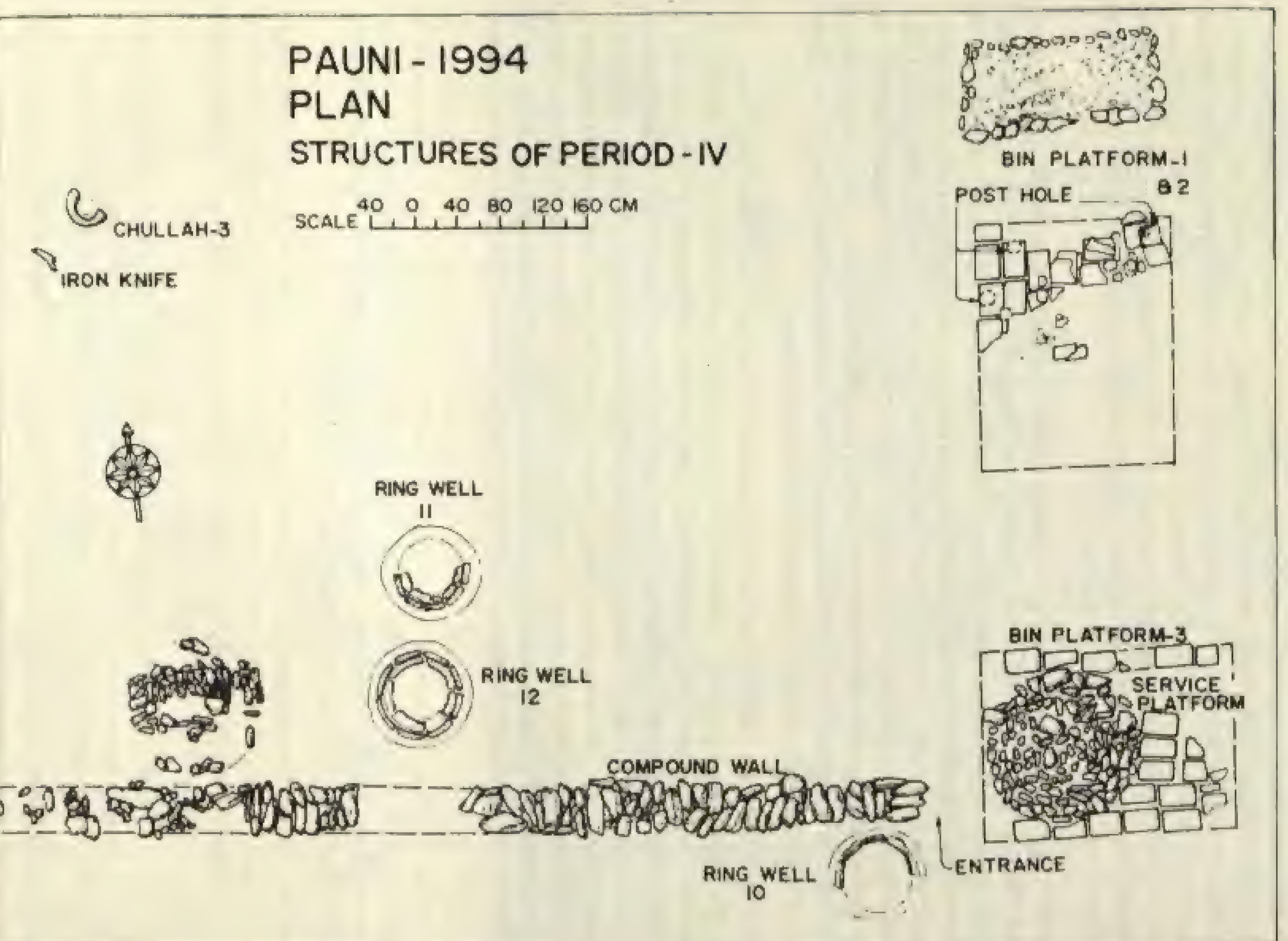
Bin Platform (fig.8).— Apart from the circular ones, oblong bin platforms in B1/1 and B1/4 were noticed. All were sealed by layer 1 and were built over the upper surface of layer 2. No. 1, built out of pebbles and random stones, was strengthened by laterite gravel and measured 1·85 × 1 m. No. 2, built out of burnt brick, was mostly robbed hence the exact length could not be ascertained, however the width worked out to be 1·85 m. An interesting feature noticed here were four post-holes, three were of usual circular variety and one was square-shape. Both the types were cut into the brick pavement. No. 3 was in better condition than the remaining two. Oriented east-west the platform shows a unique combination of circular and oblong constructions. The circular bin of stone masonry was raised on the western part of the brick-pavement while its remaining oblong portion was utilized as service platform.

Compound Wall (fig. 8).— To the west of platform No. 3, a long wall in stone masonry (10 × 0·55 m) sealed by layer 1 was exposed. It got terminated abruptly close to bin platform-3. The laying of the stone courses was quite interesting; it began with stretchers and followed by headers throughout its remaining length. It indicated the beginning of an arm of the wall, the other arm of the wall in the same alignment was started after leaving space for entrance.

Chulhā-3.— Like other two *chulhās*, the third one noticed in A1/1 was also of U-shape. Similar to *chulhā*-2, it was also made of mud and subsequently plastered. Oriented north-south it measured 45 × 30 cm. The average thickness of the arm was 12 cm. It formed part of a mud floor on which an iron knife was found (fig. 8) as one of the household items.

Kiln-2 (fig. 9).— It was oblong on plan and measured externally 2·90 × 1·80 m. The fire chamber (2·10 m) had a fuel passage towards east which was wide at the base (50 cm) and narrow in the upper section (25 cm). The upper section of the fire chamber wall had a dressing of red laterite gravel.

Period V.— The structural remains of this period included the cyclopean wall over the rampart and a brick well. Both were located in the rampart cutting sealed by layer 1.



PAUNI - 1994
PLAN
STRUCTURES OF PERIOD - IV
SCALE 40 0 40 80 120 160 CM
CHULLAH-3
IRON KNIFE
BIN PLATFORM-1
B2
POST HOLE
RING WELL 11
RING WELL 12
BIN PLATFORM-3
SERVICE PLATFORM
COMPOUND WALL
RING WELL 10
ENTRANCE

Fig. 8

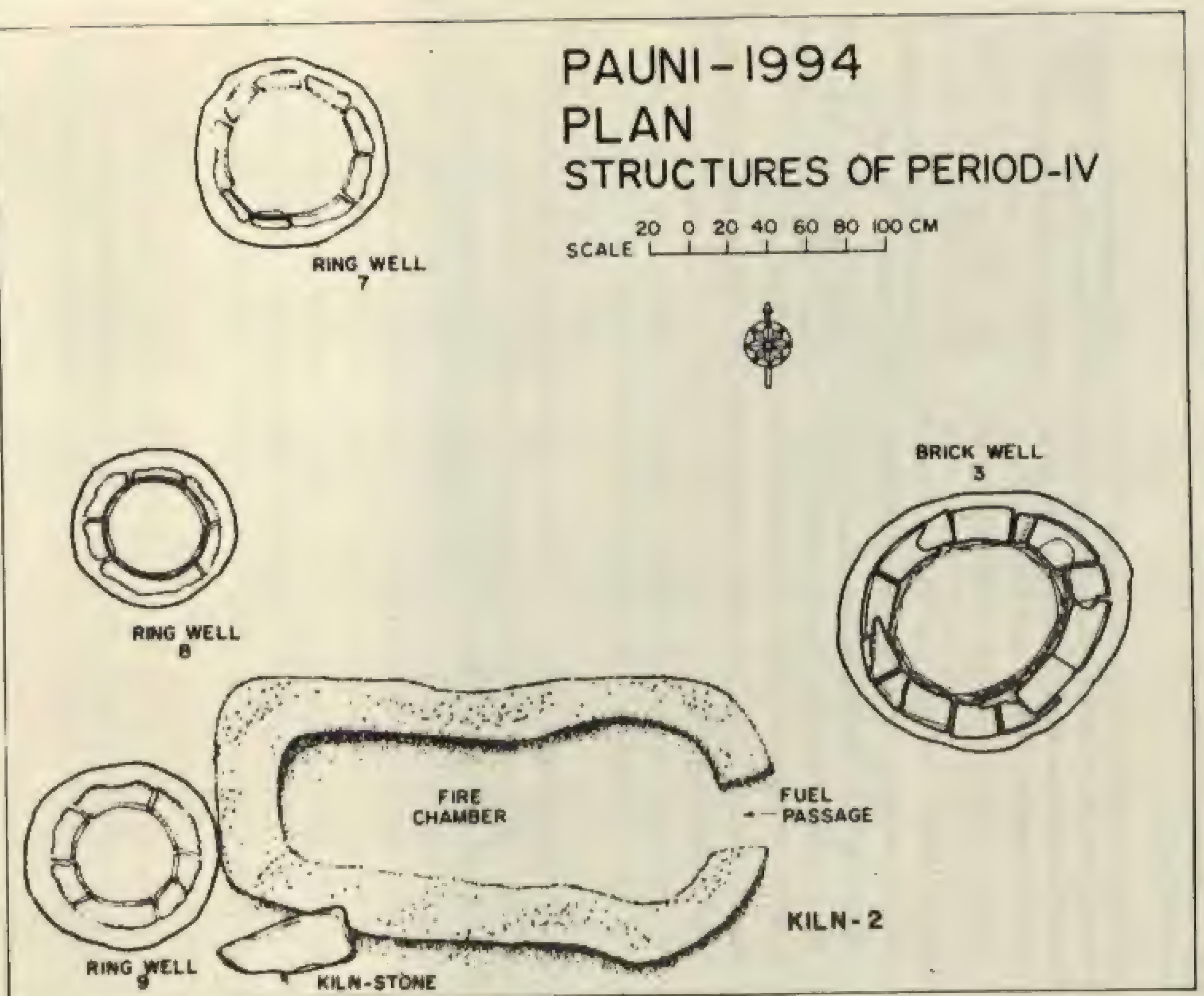

PAUNI-1994
PLAN
STRUCTURES OF PERIOD-IV
SCALE 20 0 20 40 60 80 100 CM
RING WELL 7
RING WELL 8
BRICK WELL 3
FIRE CHAMBER
FUEL PASSAGE
KILN-2
RING WELL 9
KILN-STONE

FIG. 9

Cyclopean wall (pl. VII; fig. 3) .— It was constructed over the remains of the brick parapet wall of the preceding period. Traces of it were noticed all along the surface of southern and eastern walls of the rampart, however, it could not be verified on the western wall because of medieval superimpositions.

The construction was of dry random rubble masonry. The inner face had four courses while only one course was noticed on the outer face, laid in the slope (width 3.40 m). Both faces of the wall were plumb vertical as observed from outside, while the inner portion was packed with random rubble and earth in a haphazard manner. Some re-used architectural members were also noticed in the wall. 'Thumb-nail' type grooves in a series have been noticed on two stone slabs of the upper course (pl. VII). Apart from this, a reused faceted railing pillar with a socket was noticed in the third course of the wall (pl. VIII). After the masonry work the extant height (1·10 m) of the wall was covered by an earthern ramp from inside by cutting the sediments of habitation layers, adjoining the inner toe-line.

Brick-Well-5 (pl. IV).— It was noticed in the cutting of A5/4 sealed by layer 1. In all forty courses of re-used bricks were noticed, however, its last course could not be ascertained as further digging in the natural soil had to be stopped. The diameter of the well was 65 cm.

The structural remains of medieval period were in the form of fortification wall embellished with battlement, bastions and kiosks.

CHAPTER V

POTTERY

A. PERIOD I

(i) *Painted Pottery*

Barring a few specimens of red ochre the paintings predominantly occur in black pigment and appear exclusively on vases of medium fabric red ware externally treated with red slip, mica mixed red slip and dark brown slip. The design element consists invariably of groups of parallel horizontal lines and radiating circles and incomplete geometric patterns.

Illustrated specimens (fig. 10) are explained below :

1. Fragment of a vase of red slipped ware with outturned thickened, drooping undercut rim and concave neck showing grooved interior and multigrooved exterior, painted with horizontal lines over the top and interior parts of rim and a group of seven parallel horizontal lines below the grooved portion of neck.

2. Fragment of a mica mixed red slipped ware with outturned externally elliptical and internally grooved rim, externally grooved concave neck and globular body. Shoulder painted with a group of five parallel horizontal lines, while top four are close the fifth is a little apart, a single line of similar type is seen on the interior of rim.

3. Fragment of a vase of red slipped ware with beaded rim and grooved interior. The painted design of two parallel horizontal lines appear over grooved and upper portions of rim.

4. Fragment of a vase of red slipped ware with beaded under cut rim and externally grooved neck. The interior part of rim has a group of two parallel horizontal lines.

5. Fragment of a shoulder portion of red slipped ware painted with six parallel horizontal lines.

6. Fragment of a vase of red ware externally treated with mica mixed red slip, bearing group of horizontal bands each of four lines separated by a thick band.

7. Fragment of shoulder portion of a vase of black and red ware treated with mica slip bearing a group of five thin parallel horizontal lines and above it a single horizontal thick line painted in red ochre.

8. Fragment of shoulder portion of a vase of red ware treated with mica mixed red slip bearing series of radiating circles panelled by three thick horizontal lines at top and two thin parallel lines below.

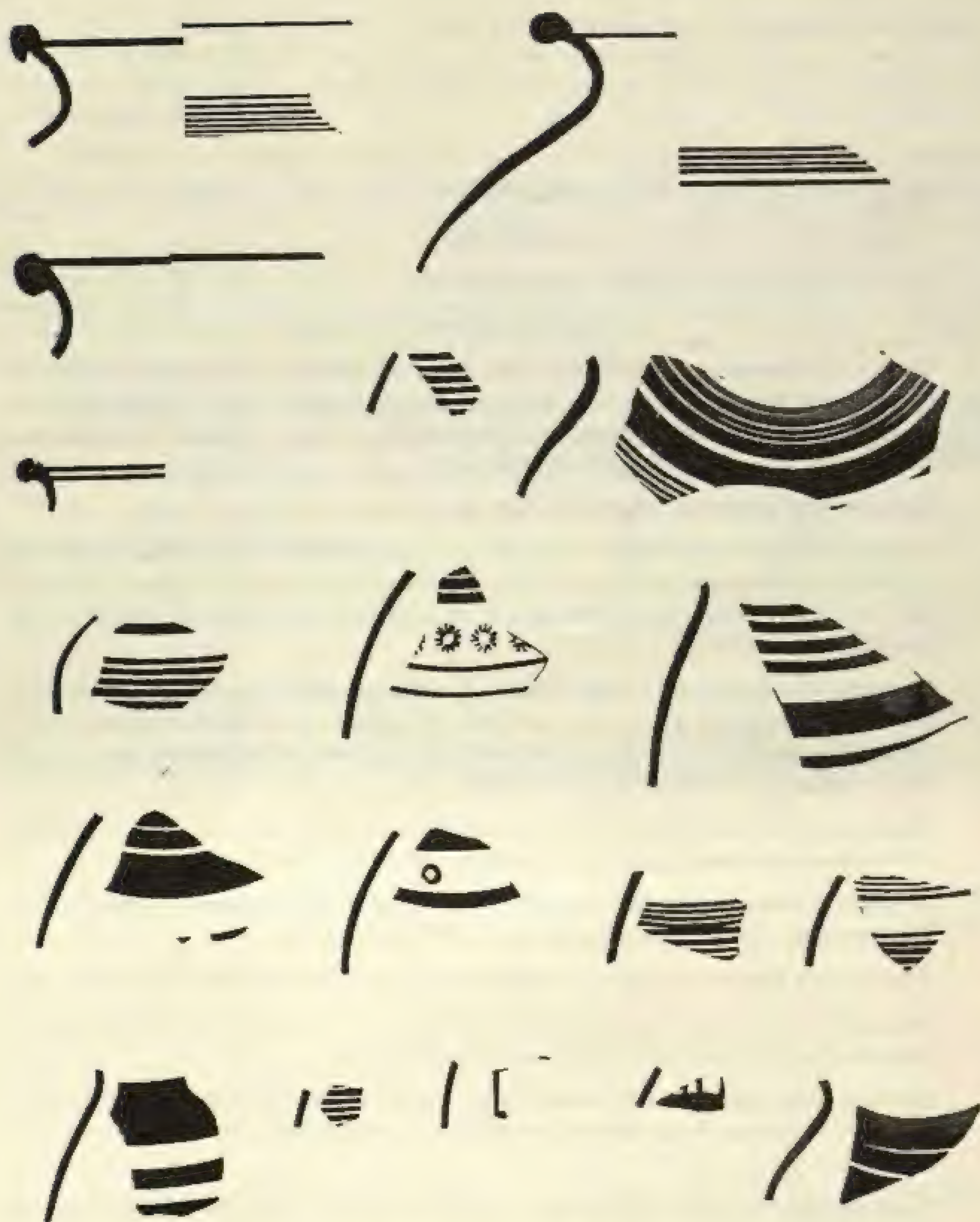


FIG. 10 : *Painted pottery, Period I*

9. Fragment of a shoulder portion of a vase of red ware externally treated with mica mixed red slip bearing a group of four parallel horizontal lines followed by a thick band and below it another parallel line.

10. Fragment of shoulder portion of a vase of mica mixed red slipped ware bearing three parallel horizontal lines of which the lowest one is of thick variety. A single horizontal band of another group is seen below.

11. Fragment of a vase of red ware treated with fine red slip bearing design of a roundel panelled by single horizontal bands on top and bottom respectively.

12. Fragment of a vase of red ware treated with dark brown slip showing crackle surface painted in red ochre with a group of eight parallel horizontal lines.

13. Fragment of a vase of black and red ware treated with red slip bearing two segments of parallel lines. The upper one consists of four parallel horizontal lines while the lower has five similar lines.

14. Fragment of a shoulder portion of a vase of red ware externally treated with red slip bearing a thick horizontal band followed by two relatively thin horizontal lines.

15. Tiny fragment of a vase of dull red ware showing six parallel horizontal lines.

16. Tiny fragment of a vase of red ware treated with fine red slip, showing a broken design of vertical line terminating with semicircular dent.

17. Tiny fragment of a vase of black and red ware treated with mica mixed red slip showing a design consisting of a series of parallel verticle lines standing over a thick horizontal band.

18. Fragment of shoulder portion of red ware of a vase treated with red slip and bearing three thick parallel horizontal bands of equal thickness.

(ii) *Other Wares*

The other wares of this period consist of three types i.e. (i) red ware of gritty micacious variety, (ii) red ware of medium to coarse fabric and (iii) grey ware of medium fabric, occasionally burnished and treated with black slip. The important shapes met with are limited to that of vase, bowl and dish. The illustrated specimens (fig. 11) are described below:

1. Fragment of a vase of coarse fabric gritty micacious red ware with thickened, outcurved rim distinguished by obliquely cut and grooved interior and externally grooved concave neck.

2. Fragment of a red ware vase of coarse fabric treated with red slip, externally chamfered rim with a sharp ridge emphasized by a groove on outside, concave neck and oblique sides.

3. Fragment of a bowl of medium fabric black-slipped grey ware with incurved featureless rim and convex sides.

4. Fragment of a funnel shaped red ware bowl of medium fabric with internally drooping featureless rim and sides sloping towards base.

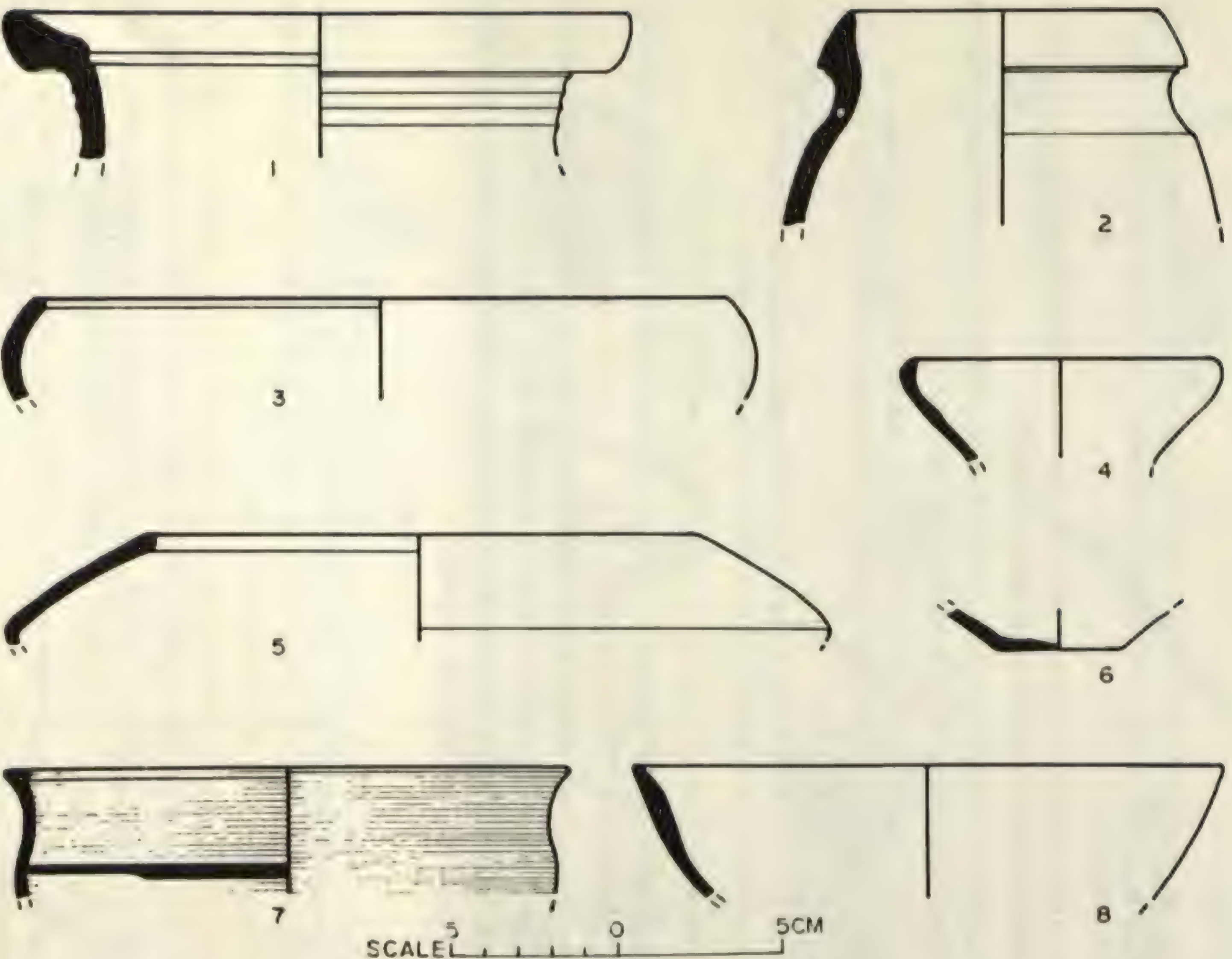


Fig. 11 : *Other wares, Period I*

5. Fragment of a dish of medium fabric mica mix red slipped ware with incurved featureless rim and carinated sides curving towards base.

6. Fragment of a base of medium fabric bowl of grey ware showing flat base and sides.

7. Fragment of a dish of medium fabric black slipped grey ware with everted, internally grooved, nail headed concave rim and turning smoothly downwards to the base, the interior bears painting of a horizontal black band circling along the body.

8. Fragment of a bowl of medium fabric burnished grey ware with internally thick and edged featureless rim and sides turning downwards to the base.

B. PERIOD II

(i) *Northern Black Polished Ware*

This distinct, well levigated, highly polished ware occurs from the stratified deposits of Period II and III, with significant frequency of occurrence marked by the presence of more tiny rimless fragments. However, the shapes met with are: Vase, bowl, dish and cup. It is characterised by two different types of surface treatment i.e. (i) highly polished steel grey surface and (ii) shiny black surface. Both the types invariably bear grey core and occasionally are found with reddish blotchy grey surface. One of the specimens illustrated here bears rivetment marks.

The illustrated shapes (fig. 12) are described below:

1. Bowl of polished steel grey surface with thickened externally bevelled rim and obliquely curved sides of reduced thickness, from Period II.

2. Bowl of shiny black surface, thickened, externally bevelled rim showing incurved profile, from Period II.

3. Vase of shiny black surface, outcurved drooping, undercut rim and concave sides at an acute angle to the rim, from Period III.

4. Cup of shiny black surface with flaring featureless rim and diminishing oblique sides, from Period III.

5. Bowl of shiny black surface with splayed cut featureless rim and concave neck, from Period III.

6. Flat base fragment of a bowl of shiny black surface bearing a wire-sized perforation indicating rivetment, from Period III

(ii) *Other Wares*

The other wares of Period II can be classified into four distinguished types, i.e. (i) medium to coarse fabric red ware treated with red and mica slip, (ii) grey ware of medium fabric, (iii) black ware of medium fabric treated with black slip and, (iv) medium fabric black and red ware occasionally treated with mica slip. The shapes met with are : vase, basin, bowl and dish. Some of the important shapes (fig. 13) are described below:

1. Fragment of a basin of coarse fabric of mica slipped black and red ware with splayed out thickened rim, carinated neck and oblique sides.

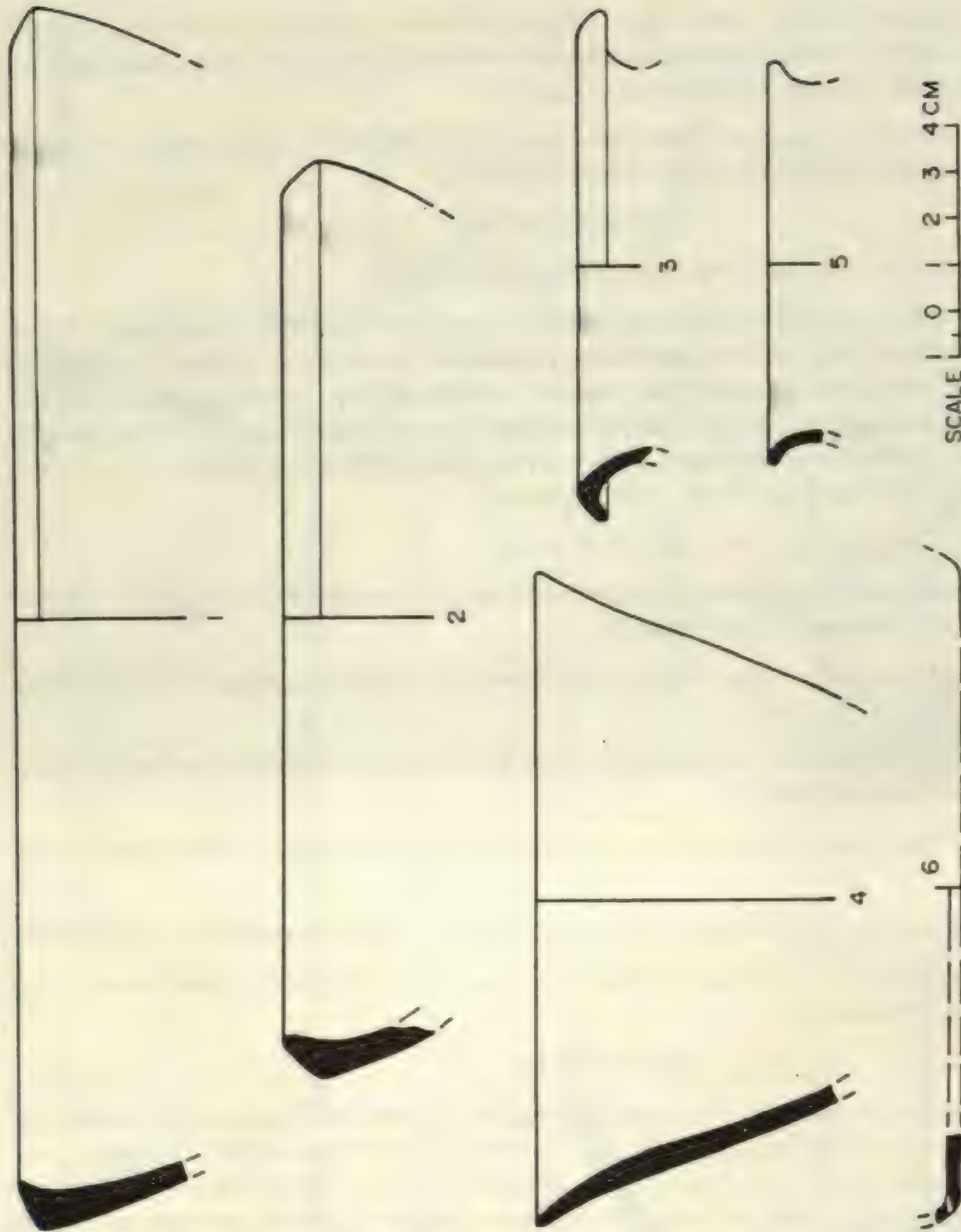


FIG. 12 : *Northern Black Polished Ware, 1 & 2, Period II and 3-6, Period III*

2. Fragment of a vase of coarse fabric of mica slipped red ware with splayed out undercut rim and externally ridged neck.
3. Fragment of a vase of coarse fabric of mica slipped red ware with its rim forming a reflex angle internally and an oblique angle externally and having an external groove.
4. Fragment of a basin of red slipped red ware of coarse fabric, horizontally flanged out thickened rim, bluntly carinated neck and externally grooved sides.
5. Fragment of a vase of coarse fabric mica mixed red slipped ware, having externally chamfered rim distinguished by ridged exterior.
6. Fragment of a basin of medium fabric red slipped red ware with long splayed out featureless rim externally corrugated neck and curved sides turning downwards towards base.
7. Fragment of a vase of coarse fabric red slipped red ware with outcurved splayed out, internally grooved rim, concave neck and oblique shoulders.
8. Fragment of a vase of medium fabric, dull red ware with externally chamfered rim making a ridge, turning inwards to form a short concave neck and plain shoulders.
9. Fragment of a vase of coarse fabric red slipped red ware with flared out, horizontally elliptical rim, straight vertical neck sweeping outwards to form shoulders.
10. Fragment of a bowl of medium fabric red slipped red ware with incurved featureless rim and convex sides.
11. Fragment of a bowl of medium fabric burnished grey ware with flaring featureless rim and sides sloping downwards to the base.
12. Fragment of a dish of medium fabric burnished grey ware with drooping internally grooved rim and oblique sides.
13. Fragment of a bowl of medium fabric, burnished grey ware with featureless, slanting rim and expanding carinated sides connected to flat base.
14. Fragment of a shallow bowl of medium fabric burnished grey ware with incurved featureless rim and sides turning inwards at an oblique angle to join the base.
15. Fragment of a bowl of medium fabric burnished grey ware with inward inclined featureless rim.
16. Fragment of a vase of coarse fabric mica slipped red ware with flared out internally thickened rim and concave neck.
17. Fragment of a bowl of medium fabric black slipped black ware with internally chamfered rim and externally grooved incurved sides.
18. Fragment of a bowl of medium fabric black slipped black ware with vertical featureless rim and sides sloping inwards towards the base.
19. Fragment of a bowl of medium fabric black and red ware with incurved featureless rim and incurved sides.

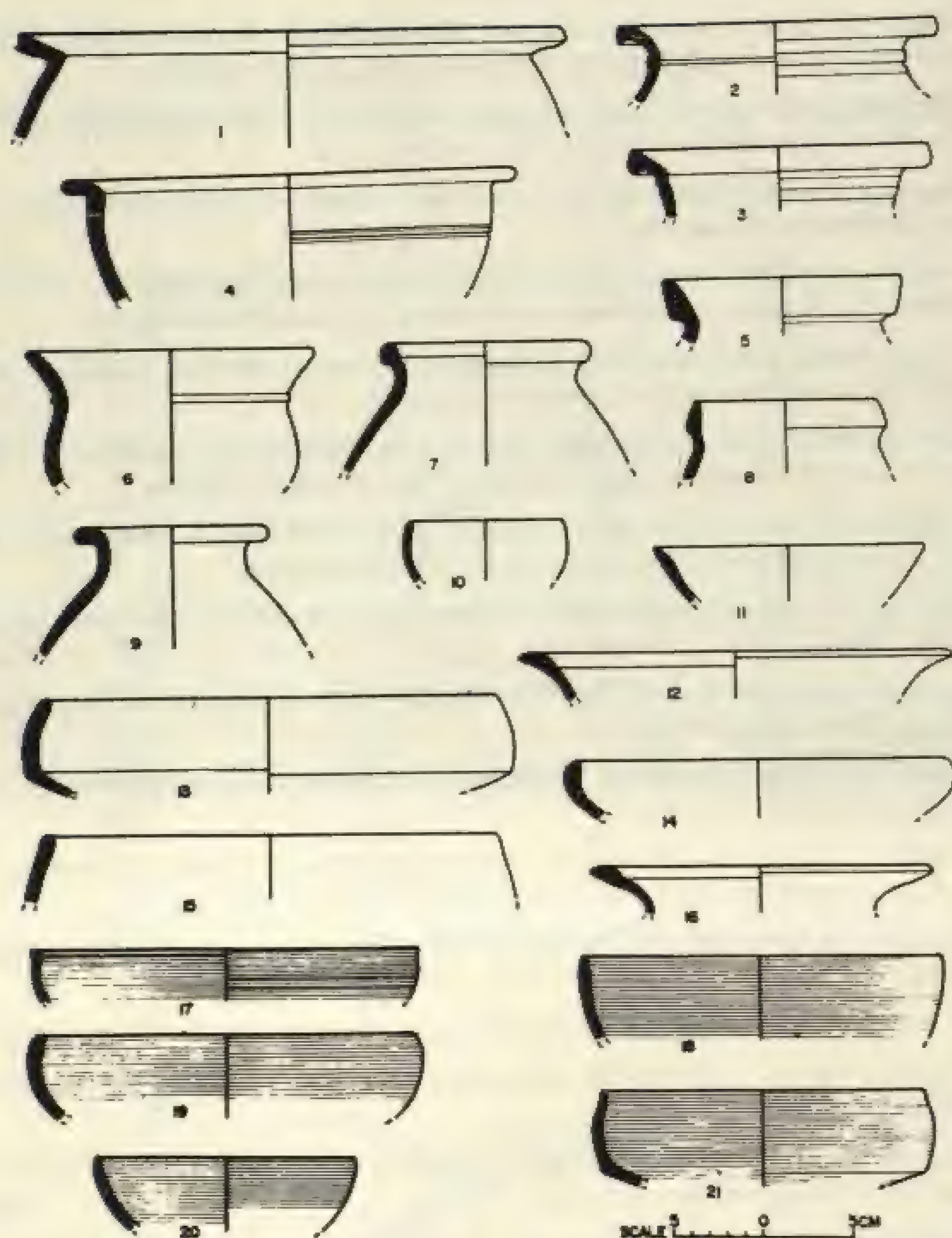


FIG. 13 : *Other wares, Period II*

20. Fragment of a bowl of medium fabric black and red ware with vertically drooping featureless rim and incurved sides.

21. Fragment of a bowl of medium fabric black and red ware with vertical featureless rim, carinated convex body.

C. PERIOD III

(i) *Other Wares*

The pottery of this period is represented by three varieties i.e. (i) Northern Black Polished Ware (see fig. 12, 3 to 6; above p.31). (ii) Red ware of medium to coarse fabric with red, tan and mica mixed red slip and (iii) Black and red of medium fabric.

The important shapes met with are : vase, basin, dish, bowl and lid cum bowl. The illustrated shapes (fig. 14) are described below:

1. Fragment of a vase of medium fabric red ware treated with pale red slip with vertical featureless rim showing an external corrugation near the neck and tiny ride on the inside and outside of the shoulder and oblique sides.

2. Fragment of a basin of coarse fabric red ware, treated with mica mixed brown slip, with outcurved, drooping undercut rim; narrow neck, carinated profile and sagger base.

3. Variant of S.No. 1 above with chamfered rim.

4. Fragment of a *handi* of coarse fabric, mica mixed red slipped red ware with splayed out featureless rim, carinated neck and oblique sides.

5. Fragment of a bowl of coarse fabric, bright red slipped red ware with internally obliquely cut rim and slanting sides.

6. Fragment of a vase of coarse fabric mica mixed tan slipped red ware having splayed out, outcurved and internally grooved rim, sharp concave neck and globular body.

7. Fragment of a small shallow bowl of medium fabric red slipped red ware with flat featureles rim, grooved externally and round base.

8. Fragment of a vase of medium fabric red slipped red ware with out-turned, thickened underct rim and concave neck.

9. Fragment of a vase of medium fabric of dull red ware having vertical featureless rim with a tir ridge near the neck on the exterior and widening shoulder.

10. Fragment of a lid cum bowl of medium fabric red slipped red ware with slanting vertic featureless rim, flanged waist and rounded lower part.

11. Fragment of a vase of medium fabric, tan slipped dull red ware with horizontally elliptical flare out rim and externally grooved concave neck.

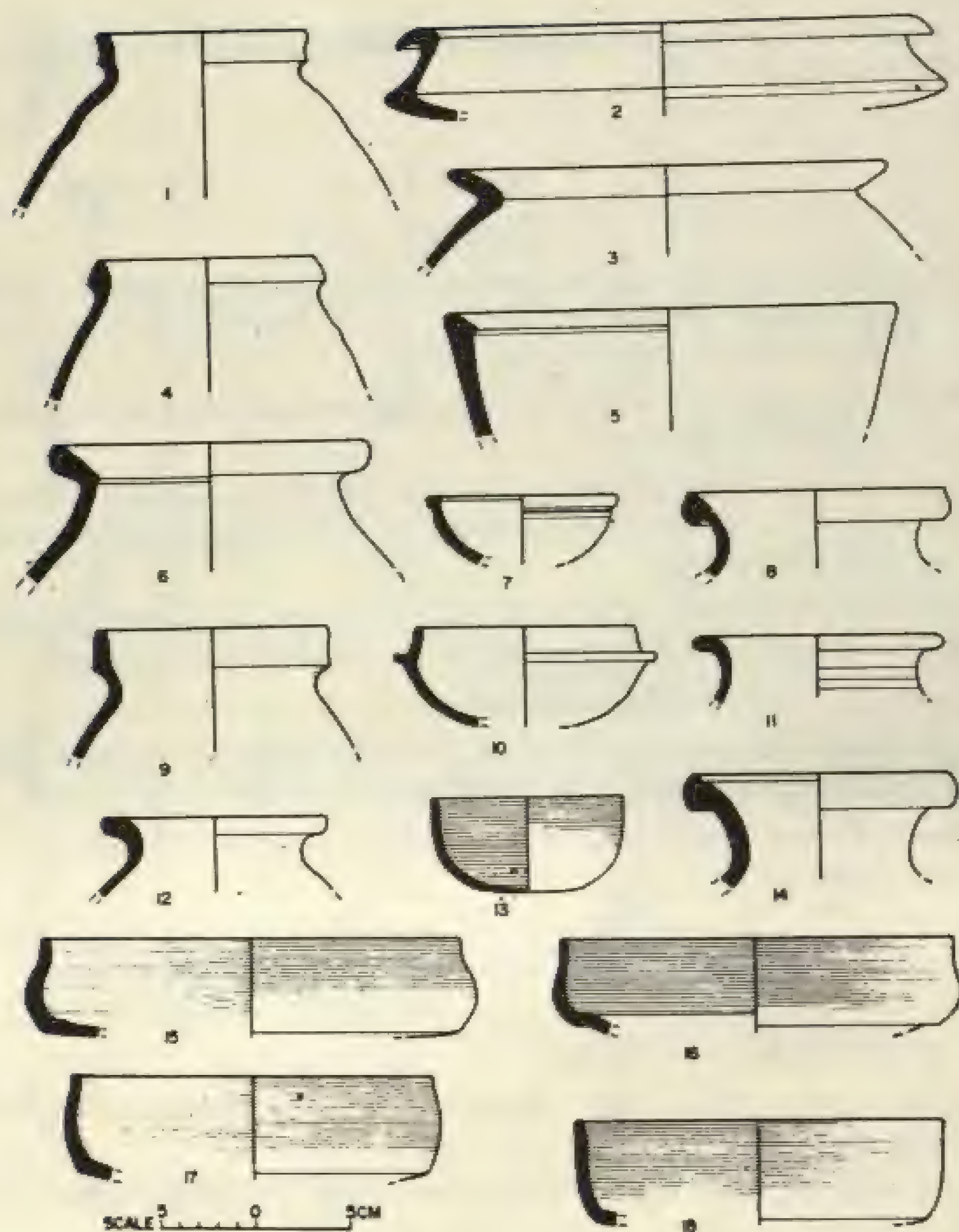


FIG. 14 : *Other wares, Period III*

12. Fragment of a vase of coarse fabric red ware, treated with slip, splayed out rim distinguished by channeled top, concave neck and globular body.

13. Fragment of a bowl of medium fabric black and red ware with vertical featureless rim incurved sides and flat base.

14. Fragment of a vase of coarse fabric red slipped red ware with thickened, out-turned undercut internally grooved rim and concave neck.

15. Fragment of a bowl of coarse fabric black and red ware with vertical featureless rim, outcurved lower sides and flat base.

16. Fragment of a bowl of medium fabric black and red ware with everted rim, convex sides and saucer like base.

17. Fragment of a bowl of medium fabric black and red ware with everted rim, convex sides and curved base.

18. Fragment of a bowl of medium fabric black and red ware with featureless rim, vertical sides and flat base.

(ii) *Northern Black Polished Ware*

A good number of rimless sherds of the Northern Black Polished Ware have been recovered from this horizon. All are of fine variety with grey core and few with blotchy surface. None of the sherds are of degenerated variety having red thick core. The selected specimens of this ware have already been described (fig. 12; S. Nos. 3-6, above p.31).

D. PERIOD IV

(i) *Thick Variety of Other Wares*

The pottery of this period primarily consists of red ware with a meagre supply of black and red, black and kaolin wares. These have broadly been classified as under, i.e. (i) decorated red ware, (ii) medium fabric red ware treated with red, mica mixed red and brown slip, (iii) coarse fabric gritty micacious red ware, (iv) fine fabric polished red ware, (v) medium fabric black ware treated with black and brown slip, (vi) medium fabric black and red ware and (vii) fine fabric kaolin ware. Mention could also be made about a fragment of an amphora handle of medium fabric in oxidized red ware with shell-white coloured slip.

Following is the description of illustrated specimens (fig. 15):

1. Fragment of a basin of mica slipped medium fabric red ware with splayed out rim, concave shoulder showing a carinated profile.

2. Fragment of a basin of mica slipped medium fabric red ware with splayed out rim, with neck and shoulder at obtuse angle and sagger base.

3. Fragment of a basin of fine slipped, medium fabric red ware with outturned drooping rim, three parallel grooves on shoulder, carinated profile and sagger base.

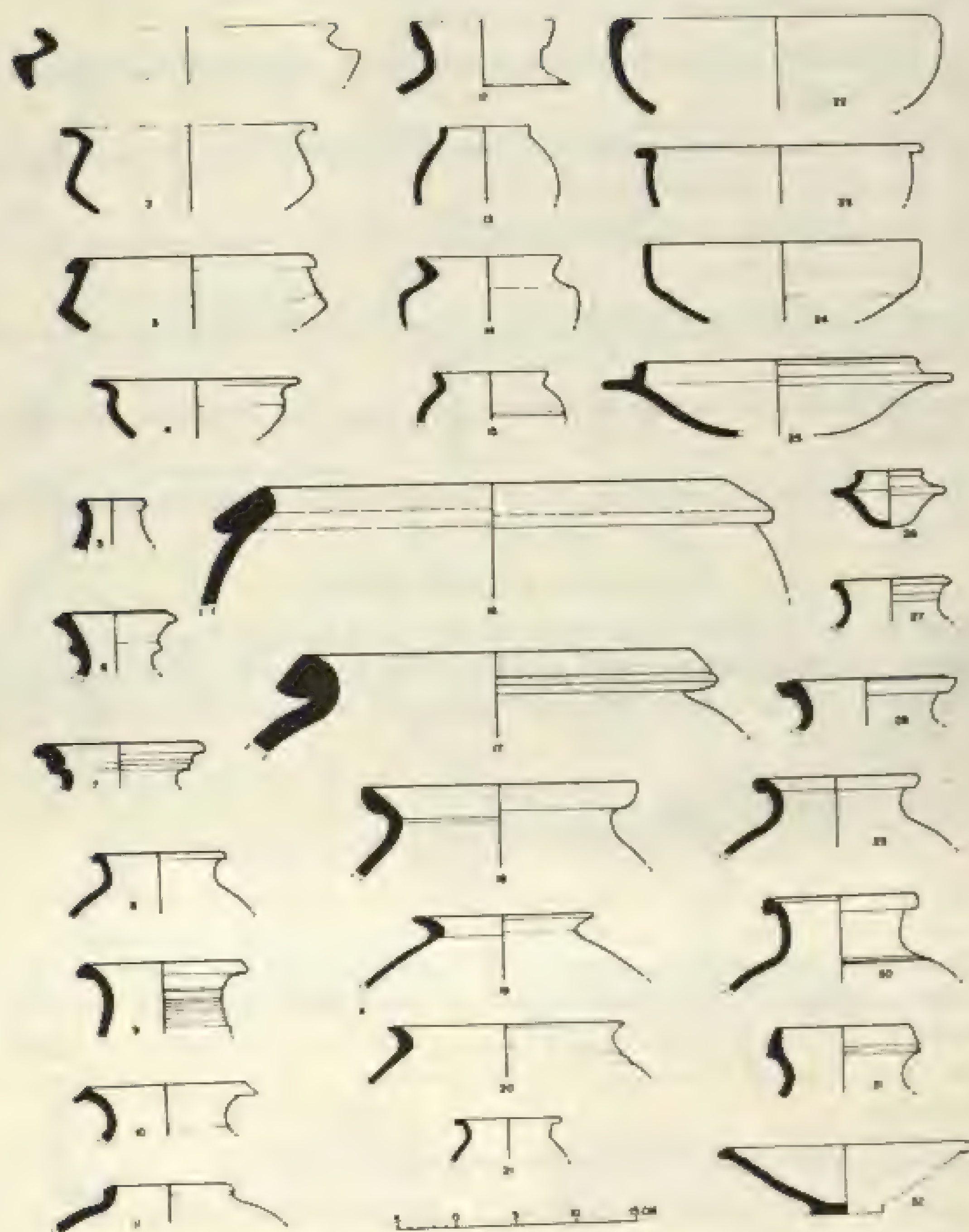


FIG. 15 : *Thick variety of other wares, Period IV*

4. Fragment of a basin of medium fabric red slipped red ware with splayed out elliptical rim, concave neck and carinated grooved shoulder having drooping profile.

5. Fragment of a vase of medium fabric red slipped red ware with splayed out featureless rim with projection and long concave neck and thicker shoulder.

6. fragment of a vase of coarse fabric red slipped red ware with externally projected angular rim showing grooved top and oblique neck with a ridge near its junction with the shoulder.

7. Fragment of a vase of coarse fabric red slipped red ware with horizontally drooping rim, thick neck with a furrow in the interior and ridge on the exterior at the junction with the shoulder.

8. Fragment of a vase of medium fabric mica slipped dull red ware with flared out rim internally grooved, concave neck and globular body.

9. Fragment of a vase of medium fabric red slipped red ware with horizontally drooping rim and externally grooved concave neck.

10. Fragment of a vase of coarse fabric red slipped red ware with out-turned drooping undercut rim with grooved interior and concave neck.

11. Fragment of a vase of medium fabric un-oxidized dull red ware with externally grooved short featureless rim, diminutive neck and large globular body.

12. Fragment of a vase of coarse fabric dull red slipped red ware showing externally splayed out, collared and internally grooved rim with concave neck and externally grooved shoulder.

13. Fragment of a vase of medium fabric mica slipped red ware with plain featureless rim, short vertical neck and globular body.

14. Fragment of a basin of medium fabric mica slipped red ware with short splayed out featureless rim, oblique shoulder and diminishing sides.

15. Fragment of a vase of medium fabric mica slipped red ware with splayed out featureless rim, short neck and externally grooved globular body.

16. Fragment of a large basin of coarse fabric mica slipped red ware with externally chamfered undercut rim and convex sides.

17. Fragment of a jar of coarse fabric red slipped red ware with outturned, externally grooved undercut drooping rim, short concave neck and oblique sides.

18. Fragment of a vase of coarse fabric mica slipped red ware with splayed out internally obliquely cut and externally grooved rim, short concave neck and oblique sides.

19. Fragment of a vase of medium fabric mica slipped red ware with flared out featureless rim, sharp concave neck and globular body.

20. Fragment of a vase of medium fabric mica slipped red ware with flared out featureless rim and externally grooved globular body.

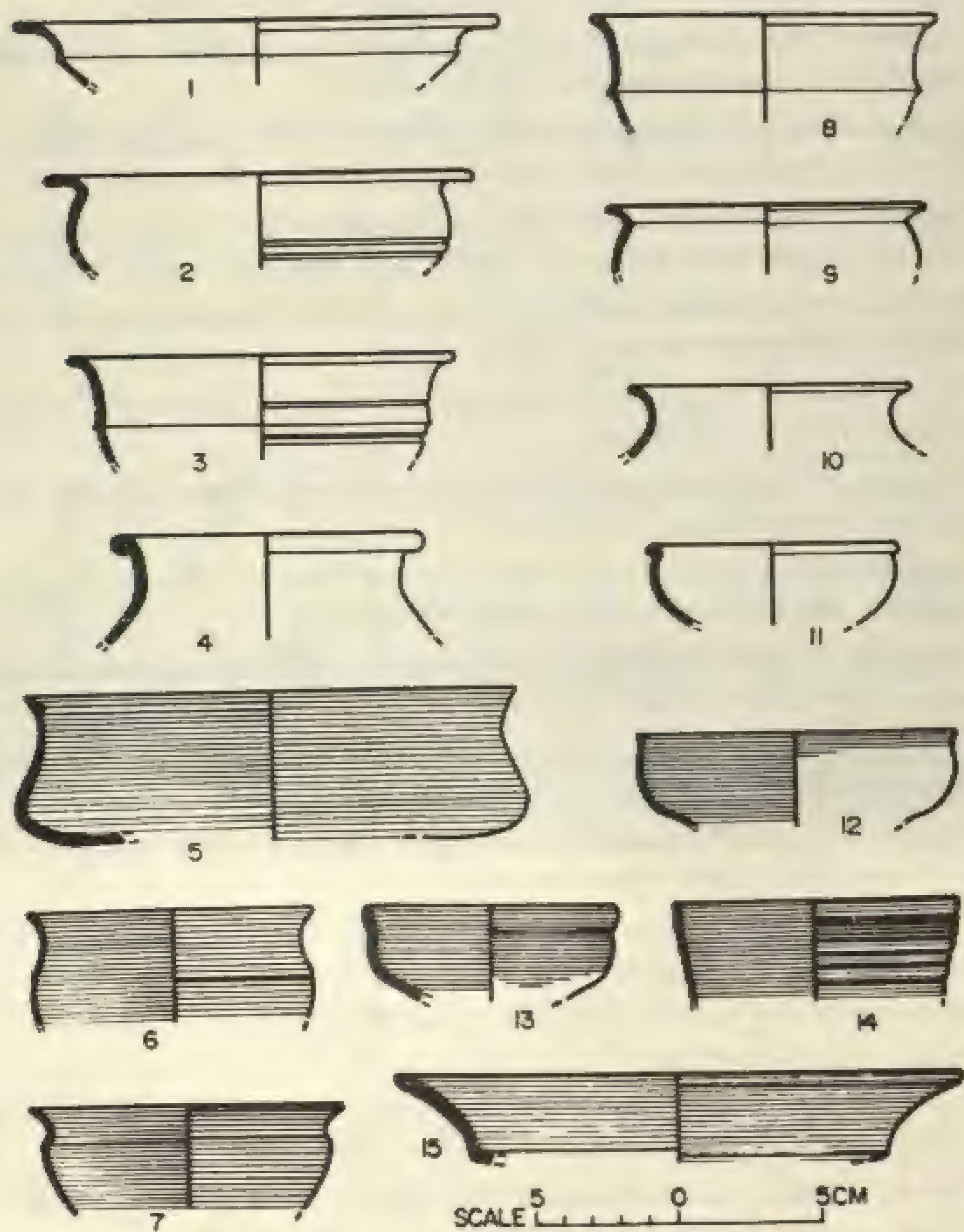


FIG. 16 : *Thin variety of other wares, Period IV*

21. Fragment of a small size vase of medium fabric, fine red slipped red ware with splayed out featureless rim, concave neck and externally grooved oblique sides.

22. Fragment of a bowl of medium fabric fine red slipped red ware with a featureless incurved rim and collared exterior showing convex sides.

23. Fragment of a basin of medium bafric fine red slipped ware with flared out rim and convex sides.

24. Fragment of a bowl of medium fabric red slipped red ware with featureless rim, vertical neck and externally grooved oblique straight sides running towards base.

25. Fragment of a lid cum bowl of medium fabric red slipped red ware with featureless rim, vertical short neck, horizontally flanged waist and sides curving downwards towards the base.

26. Fragment of a small lid-cum-bowl of medium fabric red slipped red ware with externally rounded rim, flanged waist, the curvatures of the neck and side are almost symmetrical about the waist and round base.

27. Fragment of a vase of medium fabric mica slipped dull red ware with externally drooping undercut and internally grooved rim, concave neck.

28. Fragment of a vase of medium fabric dull red slipped red ware with flared out undercut, channelled rim and concave neck.

29. Fragment of a vase of medium fabric red slipped red ware with flared out, internally grooved rim, concave neck and globular body.

30. Fragment of a vase of medium fabric, mica slipped dull red ware with externally beaded and internally grooved rim, almost vertical neck and externally grooved shoulder.

31. Fragment of a vase of medium fabric red slipped red ware with externally chamfered rim distinguished by grooved ridge on outside and concave neck.

32. Fragment of a bowl of medium fabric red slipped red ware with nail headed rim marked by corrugated interior and circular pedestal base.

(ii) *Thin Variety of Other Wares*

The thin variety of pottery occurs basically in fine fabric polished red ware, with a small number of medium fabric in black ware, treated with black or brown slip and black and red ware. The shapes met with are vase, basin dish, bowl and cup. The important shapes of this type are described below (fig. 16):

1. Fragment of a dish of red polished ware with flared, thickened oval shaped rim incurved concave neck and carinated oblique shoulders.

2. Fragment of a bowl of fine fabric polished red ware with splayed out short, featureless rim, carinated concave neck and grooved sides turning downwards towards the base.

4. Fragment of a vase of medium fabric red slipped red ware with outturned thickened rounded undercut rim, incurved neck and oblique shoulders.

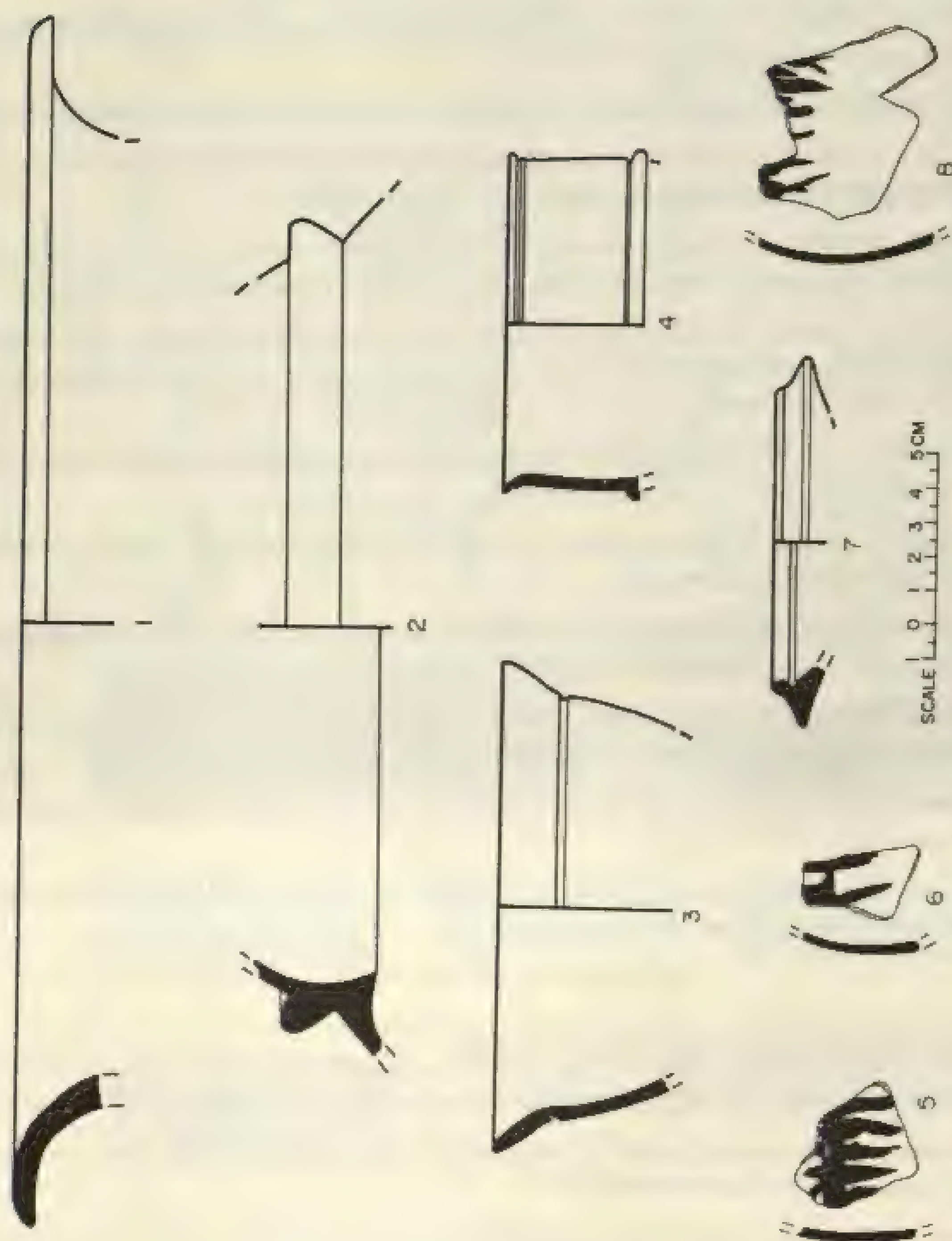


Fig. 17 : Kaolin ware, Period IV

5. Fragment of a dish of medium fabric, brown slipped black ware with internally obliquely cut and grooved nail headed rim, concave neck and convex body with flat base.

6. Fragment of a dish of medium fabric, black slipped black ware with everted rim, concave neck and convex body, with grooves on its interior and exterior surfaces.

7. Fragment of a bowl of medium fabric, black slipped black ware with flared rim, concave neck and incurved sides.

8. Fragment of a dish of fine fabric, polished red ware with splayed out curved featureless rim, carinated convex neck and inward inclined sides.

9. Fragment of a miniature *handi* of medium fabric, polished red slipped ware with splayed out rim, sharp concave neck forming a reflex angle inside and convex sides.

10. Fragment of a vase of medium fabric, dull red slipped red ware with flared out featureless rim, concave neck and oblique sides.

11. Fragment of a bowl of medium fabric, dull red slipped red ware with outturned undercut drooping rim and incurved sides.

12. Fragment of a bowl of medium fabric, black and red ware with everted featureless rim convex sides turning downwards straight to the base.

13. Fragment of a bowl of medium fabric, black and red ware with externally grooved incurved featureless rim and diminishing convex sides.

14. Fragment of a cup of medium fabric, brown slipped black ware with vertical featureless rim with externally corrugated inward tapering sides.

15. Fragment of a plate-shaped shallow dish of medium fabric, brown slipped black ware with flared out featureless rim, inward inclined sides merging with the base at an obtuse angle.

(iii) *Kaolin Ware*

Representation of kaolin ware was marked by meagre occurrence of eight sherds. This ware is exclusively well fired and well levigated with fine fabric, showing off-white surface, which in some cases is painted in red ochre. The shapes met with include vase, bowl, dish and lid cum bowl.

The description of illustrated specimens is given below (fig. 17):

1. Fragment of a dish showing flared out featureless rim.

2. Fragment of a base portion of a dish showing ridged sides and flat base.

3. Fragment of a bowl of thin variety showing splayed out rim, externally grooved neck and incurved sides.

4. Fragment of a bowl of thin variety with externally grooved everted rim and vertical sides with a ridge in the middle.

5. Fragment of a vase, painted in red ochre on off-white surface, showing a group of vertical brush strokes of irregular shape intersected by a horizontal broad brush stroke at right angle.

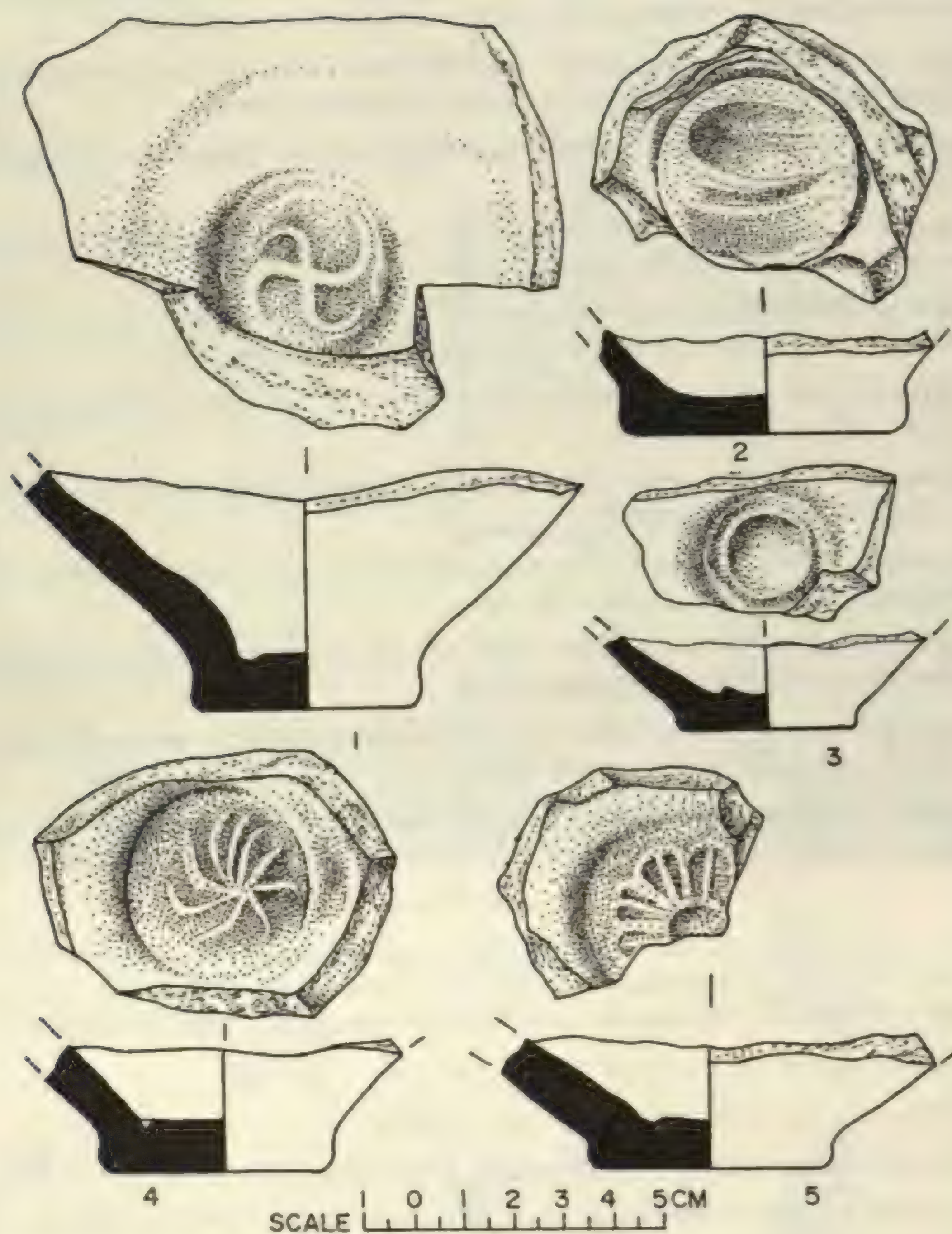


FIG. 18 : *Bowls with interior stamped base, Period IV*

6. Fragment of a vase, painted in red ochre on off-white surface, showing two vertical brush strokes joined by a horizontal thinner stroke.

7. Fragment of a lid cum bowl, with vertical featureless rim, flanged waist and oblique sides having a furrow on the interior at the base of the neck.

8. Fragment of a vase, painted in red ochre on off-white surface showing group of irregular vertical strokes, similar to the one noted above at sl. no. 5.

(iv) *Bowls with interior stamped base (fig. 18)*

1. Fragment of a bowl of coarse fabric, mica mixed dull red slipped red ware, decorated on its interior surface of vase with a *swastika* symbol showing anti-clockwise radiating arms.

2. Fragment of a bowl of coarse fabric, red ware decorated on its interior surface of base with two finger pressed impressions.

3. Fragment of a bowl of medium fabric, red ware, the interior surface of its base has a roundel decoration.

4. Fragment of a bowl of coarse fabric, red ware, decorated on its interior surface of base with a floral motif showing radiating lines.

5. Fragment of a bowl of coarse fabric, red ware, the interior surface of its base being decorated with a rosette motif showing multi-petalled flower. Petals and carpel are shown in an impressive manner.

(v) *Decorated Ware*

The decorated ware is represented by medium fabric, red ware treated with red and brown slips and coarse fabric, gritty micacious red ware. In all, three types of decorations were observed among this pottery, i.e. (i) Applique decoration consists of roundels and horizontally converging oblique lines and series of vertically incised bands, (ii) Cord impressions, forming one or three loops and (iii) Stamped variety which include *triratna* or *nandipada* symbols of variant types, *swastika* symbols, rosette motifs, medallions and floral motifs consist of roundels. Of these decorations, the applique variety occurs on jars and vases, cord impressions, confined to vases and stamped variety occurs on vases and bowls.

Following is the detailed description of some of the important decorated designs and shapes (fig. 19):

1. Fragment of a vase of medium fabric, red slipped red ware with externally thickened, under cut rim showing ridged top, constricted neck and globular body. Decorated on the shoulder with rows of oblique parallel lines of incised depressions.

2. Fragment of a vase of medium fabric, red slipped red ware decorated with incision showing alternate groups of three oblique parallel lines and oblique row of semi-circular notches in between.



FIG. 19 : *Decorated ware, Period IV*

3. Fragment of a vase of coarse fabric, red ware, with splayed out rim, shoulder portion decorated with a row of incised pendant triangles boardening incised dots.

4. Shoulder fragment of a vase of medium fabric, red ware, decorated with stamped *triratna* symbol showing three vertical prongs resting over a rectangular pedestal with dented base.

5. Fragment of a '*surāhi*' shaped vase of medium fabric, mica slipped red ware, decorated with pendant triangle showing a leaf sandwiched between two stalks, all suspended from a string.

6. Shoulder fragment of a vase of medium fabric, red ware, decorated with a group of two *triratna* symbols, with centre prong showing diamond shaped top surrounded by group of two arrow headed prongs on either side, resting over a stepped pyramidal shaped pedestal showing arrow marked ribbon.

7. Shoulder fragment of a vase of medium fabric, red ware, decorated with a group of two *triratna* symbols showing short, vertical centre prong with taperig sides, surrounded by incurved prongs on either side resting over a rectangular pedestal.

8. Fragment of a storage jar of coarse fabric, red ware, decorated with applique flower motif of multiple curved petals springing from the carpel and curving in clockwise direction.

9. Fragment of a large storage jar of coarse fabric, red ware, decorated with applique design, showing on top a horizontal band of vertical incisions, followed by 'U' shaped band placed obliquely connected with a circular dot at the centre and panelled by an oblique band of incised ellipses.

10. Shoulder fragment of a vase of medium fabric, dull red ware, decorated with stamped rosette motif showing four oval shaped petals and alternate smaller ones intersected by small triangles on the outer periphery in a radiant circle.

11. Fragment of a vase of medium fabric, red ware, decorated with cord impression, forming three loops two on either side and one suspended below with oblique loose ends meeting each other at right angle on top.

12. Fragment of a vase of medium fabric, dull red ware, decorated with cord impression forming 'drop' shaped loop.

13. Fragment of a vase of medium fabric, red ware, decorated with cord impression showing a group of two loops, one circular and other ellipsoidal in shape.

14. Fragment of a vase of medium fabric, dull red ware, decorated with an applique design showing triangle filled with obliquely hatched parallel lines.

15. Fragment of a vase of medium fabric, mica slipped red ware, decorated with series of long narrow '*hāra*' shaped dotted lines followed by rows of oblique incised lines below separated by ridged applique band in the middle.

16. Fragment of a vase of medium fabric, red ware, decorated with applique decoration showing two parallel arcs, the lower one borders a pattern showing groups of three designs of mounted semi-circular arches sandwiched between a pair of two vertical bars crowned by two hook shaped curves.



FIG. 20 : *Decorated ware, Period IV*

17. Fragment of a vase of medium fabric, dull red ware, showing decoration of incomplete floral design of petals and roundels.

18. Fragment of a spouted vessel of medium fabric, red ware, decorated on body with circlets and curvilinears.

19. Fragment of a vase of medium fabric, dull red ware, decorated with rosette motif characterised by multi-petals, carpel in the centre intercepting with alternate smaller ones in a radiant circle.

20. Fragment of a vase of medium fabric, dull red ware, decorated with flower motif showing triangular shaped petals flanked by smaller ones and carpel in the centre.

21. Fragment of a vase of medium fabric, dull red ware, decorated with two parallel arcs, the lower one borders a series of mounted semicirular arches.

22. Fragment of a vase of medium fabric, red ware, decorated with an applique design consisting of a number of suspended strings of beads of different sizes but spherical in shape.

23. Fragment of a vase of medium fabric, dull red ware, decorated with designs of circular trays in which spherical and prism shaped beads of various sizes were placed.

24. Fragment of a jar of coarse fabric, red ware, decorated with an applique band showing a row of incised circlets followed by a row of irregular oval shaped roundels.

25. Fragment of a storage jar of coarse fabric, gritty red ware, decorated with two rows of horizontal applique roundels.

26. Fragment of a vase of coarse fabric, gritty micacious red ware, decorated with a band of applique roundels followed by a row of incised oblique lines converging horizontally in herring bone pattern.

27. Fragment of a vase of medium fabric, red ware, decorated around neck over the shoulder with a row of ellipses.

(fig. 20)

1. Fragment of a vase of medium fabric, red ware, decorated with *swastika* symbol showing angular arms.

2. Shoulder fragment of a vase of medium fabric, red ware, decorated with stamped *triratna* symbol showing elongated vertical centre prong with tapering sides surrounded by two incurved prongs on either side.

3. Fragment of a vase of red ware decorated with flower medallion, showing two eroded flower having seven petals each.

4. Fragment of a vase of medium fabric, red ware, decorated with a flower medallion of eight petals and encircled by a chain design.

5. Fragment of a vase of red ware decorated with a stamped motif of radiating circle.

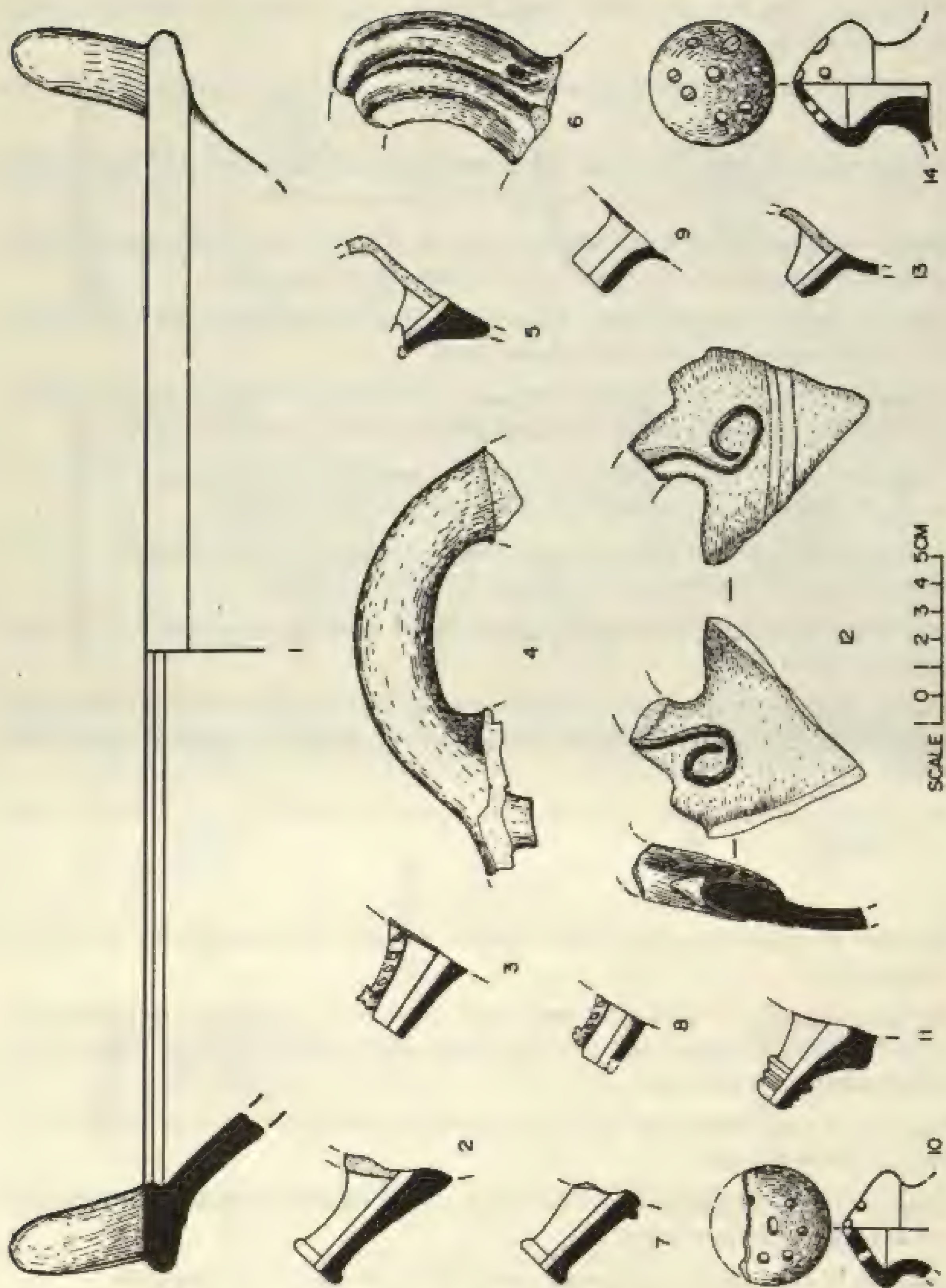


FIG. 21 : *Spouts, handles and perforated knobs*

6. Fragment of a vase of medium fabric, red slipped red ware, decorated with *swastika* symbols showing curved arms.

7. Fragment of a vase of medium fabric, fine red slipped red ware, decorated with a *triratna* symbol.

8. Fragment of a medium fabric, red ware, decorated with a flower medallion showing eight petalled flower.

9. Fragment of a vase of medium fabric, red ware, bearing stamped decoration of a rosette motif with long triangular petals intercepted by smaller ones in a radiant circle.

10. Fragment of a vase of medium fabric, red ware, decorated with flower medallion showing oval shaped petals encircled by a chain design.

(vi) *Spouts, Handles and Perforated knobs* (fig. 21)

1. Fragment of a basin of medium fabric, mica slipped red, ware with internally grooved nail headed rim, luted with semicircular handle of circular cross section.

2. Barrel shaped spout of fine fabric, red slipped red ware, with a collared neck.

3. Fragment of a spout of medium fabric, dull red ware, in *makara-mukha* shape.

4. Handle fragment of a gritty micacious dark brown ware in semi-circular profile and round in section, showing luted end.

5. Fragment of a spout, luted to a vessel of medium fabric, red ware showing tapering sides.

6. Fragment of an 'amphora handle' of coarse fabric, red ware, curved profile treated with white slip, internally and externally grooved bifurcated solid body.

7. Spout of medium fabric, red ware, with collared neck and tapering sides.

8. Fragment of a spout of fine fabric, red ware, in *makara-mukha* shape.

9. Cylindrical shaped spout of medium fabric, red ware, showing featureless end.

10. Fragment of a perforated knob of medium fabric, red ware, with conical shaped top and concave neck.

11. Spout of medium fabric, brown slipped grey ware, with grooved offset neck, tapering sides and suspended projection below.

12. Fragment of a handle of coarse fabric, red ware, with the luted portion bearing an incised looped rope design.

13. Spout of medium fabric, red ware, with short featureless neck and tapering sides.

14. Fragment of a perforated knob of medium fabric, red slipped red ware, resembling S.No. 10 in shape.



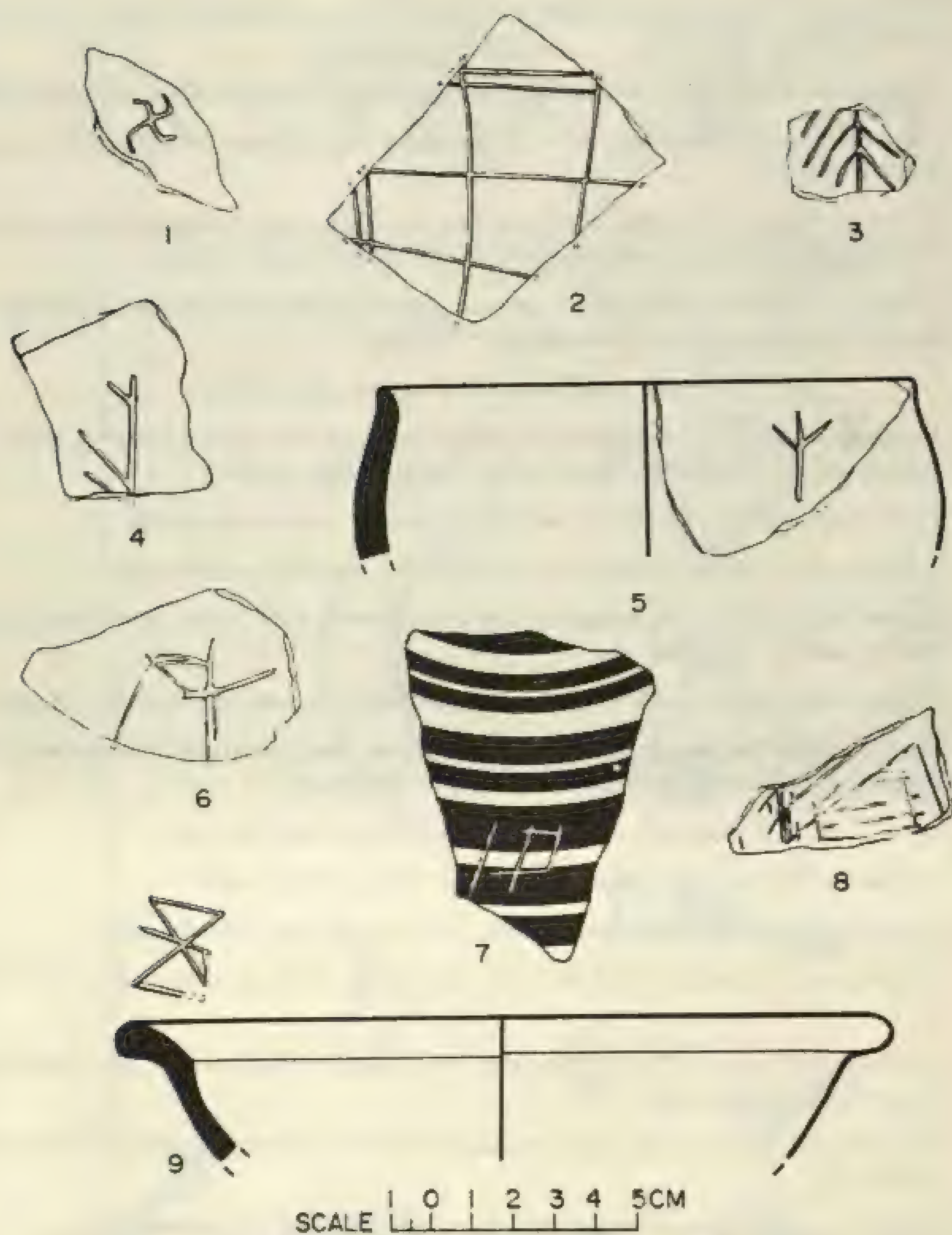


FIG. 22 : *Graffiti, 7 & 9, Period I: 3. Period II, 5-6. Period III and 1,2,4 & 8. Period IV*

E. GRAFFITI

The occurrence of graffiti marks, though less in number, evidently shown their continuous appearance from Period I to Period IV. The marks were incised on exterior or interior portions of vases, bowls and dishes. Most of these signs show their megalithic origin.

The following specimens are illustrated below (fig. 22):

1. Fragment of a red slipped red ware bearing graffiti mark of a radiating *'swastika'* with prongs turning anti-clockwise, from Period IV.
2. Fragment of a red slipped red ware bearing graffiti mark of more than three vertical lines intersected at right angles by the same number of horizontal lines, forming rectangular grids, from Period IV.
3. Fragment of a brown slipped red ware bearing graffiti mark on its interior showing a leaf with its veins, from Period II.
4. Fragment of a coarse red ware with a graffiti mark showing the design of a tree as it appears in autumn without leaves, from Period IV.
5. Fragment of a black slipped black ware bowl with the graffiti showing the design of a tree and its two branches without leaves, from Period III.
6. Fragment of a dish of black and red ware with a graffiti on its exterior base showing a stylised humped bull, depicted with two slanting vertical lines connected at top with a slopy curved line connected by a convex line to it thus representing body and legs while two converging oblique lines connected by another oblique line shows horns and hump of the bull, from Period III.
7. Fragment of a vase of black painted red slipped ware bearing graffiti mark resembling Roman alphabets I and P, from Period I.
8. Fragment of a dish of black and red ware with its interior showing part of a triangle hatched with five horizontal and two vertical lines. Another group of three vertical lines standing close to it are intersected by a long horizontal slanting line, from Period IV.
9. Fragment of a bowl of red ware. The graffiti appear over the surface of splayed out rim showing an outline of kettle-drum with a horizontal cut in the intersected portion, from Period IV.



FIG. 23 : *Copper objects*

CHAPTER VI

OTHER FINDS

A. METAL OBJECTS

(i) *Gold*

The excavation yielded only two specimens of gold, out of which a thin gold foil came from the layer below the rampart of Period II and the other was reported from Period IV.

1. Talisman made of two pieces, inside hollow, exterior shows bands at intervals decorated with chevron motif (pl. XV A). From mid level of Period IV (PNI. 1 : 350).
2. Fragment of a gold foil. From the earliest level of Period I, unillustrated (PNI. 2: 684).

(ii) *Silver*

Apart from the silver punch-marked and kshatrapa portrait coins, the site yielded only one specimen in the form of a tiny ring forming part of some personal ornament, unillustrated. From mid level of Period IV (PNI. 1: 56).

(iii) *Copper*

The excavation yielded one hundred sixty-nine copper objects, of which nearly one hundred twenty nine were coins. However, other objects were in the form of bangles, beads, rings and ear stud. It is noteworthy that copper was found in all the Periods.

Selected specimens are described below (fig. 23):

1. Talisman : inside hollow, square cross-section, outside three grooved parallel double lines. From the earliest level of Period IV (PNI. 2: 729).
2. Talisman: with four triple lined grooves around cylindrical body, circular cross-section, inside hollow. From mid level of Period IV (PNI. 1: 103).
3. Miniature bowl. From the earliest level of Period IV (PNI. 1: 221).
4. Moulded Bowl : having featureless rim, externally corrugated sides. From a pit of Period IV (PNI. 2: 905).
5. Three horse-shoe shaped round bars joined in the form of a trefoil and rivetted to a plate of indeterminate use, showing traces of rusted iron, may be part of some decorative element[1]. From the earliest level of Period IV (PNI. 1: 452).

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[1]Similar objects have been reported at Sirkap. Cf. *Archaeological Survey of India, Annual Report*, 1912-13, Pl XXIVc, 2, XXIVa, 13 & 48; A. Ghosh, "Taxila (Sirkap), 1944-45", *A.I.*, No. 4, 1947-48, p.78, Pl. XVIII-B, 11.

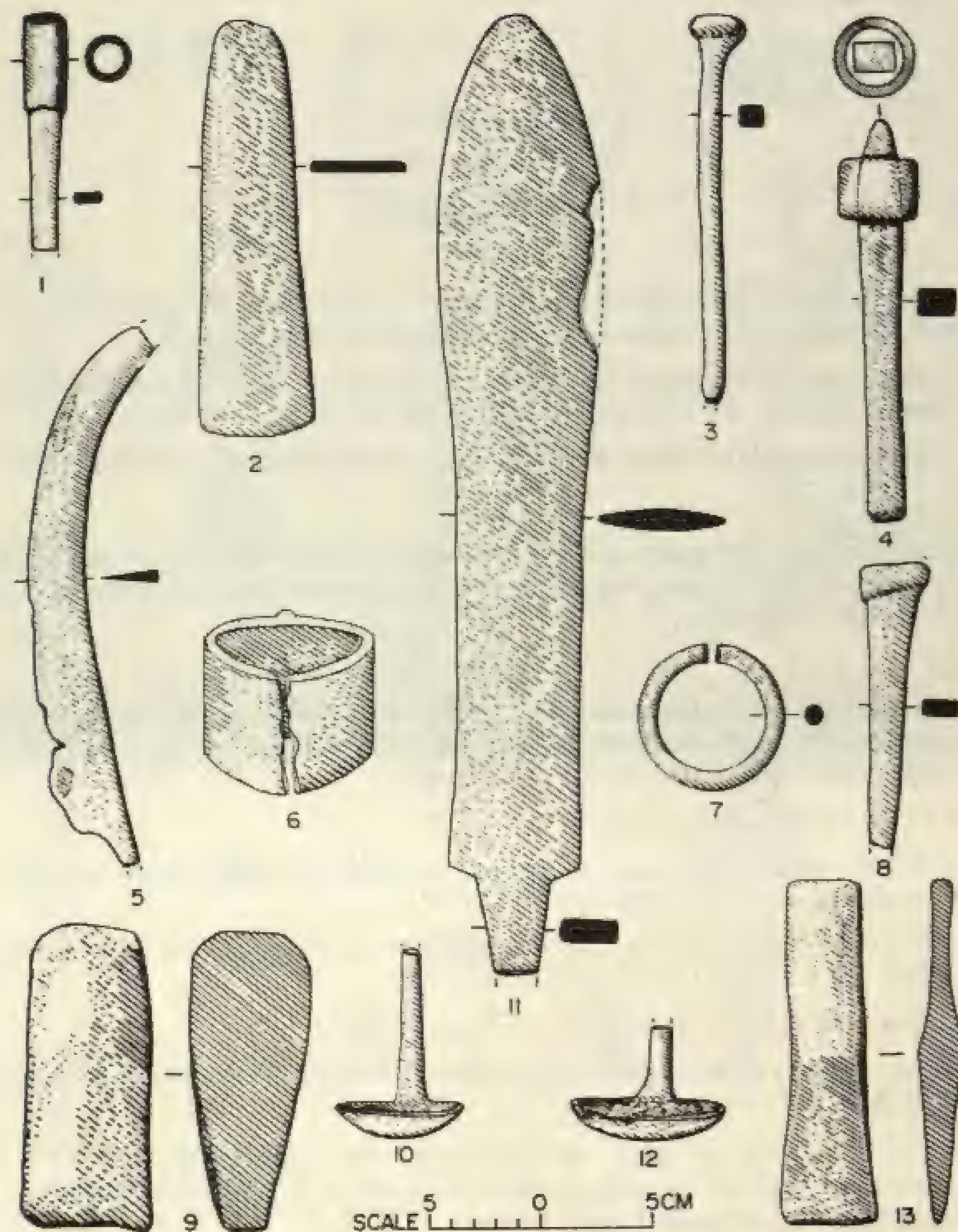


Fig. 24 : *Iron objects*

6. Ring, circular in section, showing coiled bezel with twisted sides. From the earliest level of Period IV (PNI. 1 : 652).

7. Toe-ring (coil-like) of plano-concave section with overlapped ends, upper surface bears a band of dot-like mouldings. From earliest level of Period IV (PNI.1:253).

8. Fragment of an elephant figurine showing right side tusk, leg and trunk, an out product of double mould. From late level of Period II (PNI. 1: 500).

9. T-shaped pendant. From early level of Period II (PNI.2:918).

10. Moulded mirror handle. From the earliest level of Period IV (PNI. 1 : 268).

11. Fragment of a lid with a conical knob attachment, with circular base having floral design. From the earliest level of Period IV (PNI.1:724).

12. Antimony rod of round section thickened at the ends. From late level of Period IV (PNI. 1:616).

13. Miniature bell. From the early level of Period II (PNI. 2:840)

14. Fragment of a crescent shaped hollow copper bangle having a series of oblique grooves on the exterior. From late level of Period IV (PNI.2:234).

15. Trinket of torso shape, the upper part shows a hole and the lower a cut. From late level of Period III (PNI.1:231).

16. Solid ring of plano-concave section. From top level of Period IV (PNI.1:321).

17. A tiny tweezer-like clip of an indeterminate use. From the earliest level of Period IV (PNI.1:496).

18. Antimony rod or toiletry of round section. From the earliest level of Period IV (PNI.1:722).

(iv) *Iron*

The excavations have brought to light a total number of fifty-three Iron objects. It includes household objects and implements. Some of the noteworthy finds (fig.24) are described below:

1. Chisel with a ring fastener at the top to ensure grip to wooden handle. From Period IV (PNI.2:789).

2. Axe. From the earliest level of Period IV (PNI.1:483).

3. Nail, square cross-section with a flat circular head. From the earliest level of Period IV (PNI.1:723).

4. Chisel with a ring fastener at the top to ensure grip to wooden handle. From the mid level of Period IV (PNI.1:061).

5. Knife. From the earliest level of Period IV (PNI.1:974).

6. Ferule. From the earliest level of Period IV (PNI.1:245).

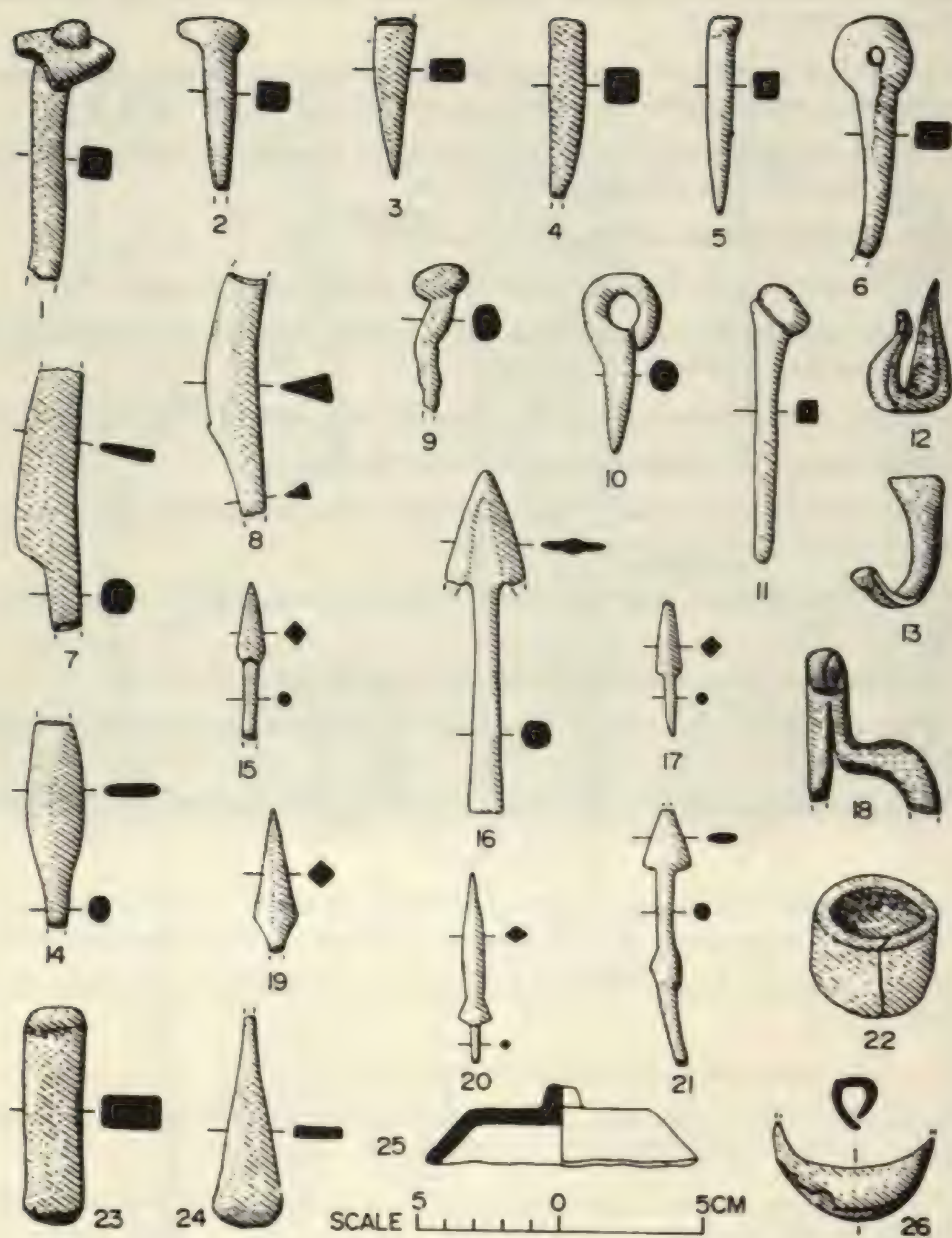


FIG. 25 : *Iron objects*

7. Ring fastener, circular cross-section. From a pit of Period IV (PNI.2:862).
8. Nail with flat head, tip broken, oblong cross- section. From early level of Period III (PNI.1:783).
9. Anvil. From Period III (PNI.1 : 739).
10. Dipper. From a pit of Period IV (PNI.2:832).
11. Dagger, well finished, lenticular in section. From the earliest level of Period IV (PNI.1:263).
12. Dipper. From late level of Period IV (PNI.1:581).
13. Chisel. From late level of Period IV (PNI.1:580).

(fig.25)

1. Nail of square cross-section with knob-head. From mid level of Period IV (PNI. 1:644).
2. Nail of square cross-section with an expanded folded head. From early level of Period II (PNI.1:531).
3. Nail of oblong cross-section. From late level of Period IV (PNI.1:198).
4. Nail of square cross-section with featureless head. From earliest level of Period IV (PNI.1:254).
5. Nail of square cross-section with a dent in head. From late level of Period IV (PNI.1:315).
6. Staple or hinge with oblong cross-section. From the earliest level of Period IV (PNI.1:250).
7. Knife. From mid level of Period IV (PNI.1:391).
8. Knife. From Period III (PNI.1:577).
9. Nail of circular cross-section with knob-head. From mid level of Period IV (PNI.1:473).
10. Clamp or staple. From mid level of Period IV (PNI.1:564).
11. Nail of square cross-section with a flat hooked head. From the earliest level of Period IV (PNI.2:730).
12. Bent clip. From the earliest level of Period IV (PNI.1:653).
13. Fragment of an iron hook, probably a latch or clip. From late level of Period IV (PNI.1:614).
14. Arrowhead. From the earliest level of Period IV (PNI.1:482).
15. Arrowhead, four-edged and tanged. From the earliest level of Period IV (PNI.1:281).
16. Arrowhead, barbed and socketed. From Period III (PNI.1:757).
17. Elongated arrowhead, four-edged. From late level of Period II (PNI. 2:810).
18. Clamp. From the earliest level of Period IV (PNI.1:713).
19. Arrowhead. From Period III (PNI.1:512).
20. Arrowhead. From late level of Period II (PNI.2:809).

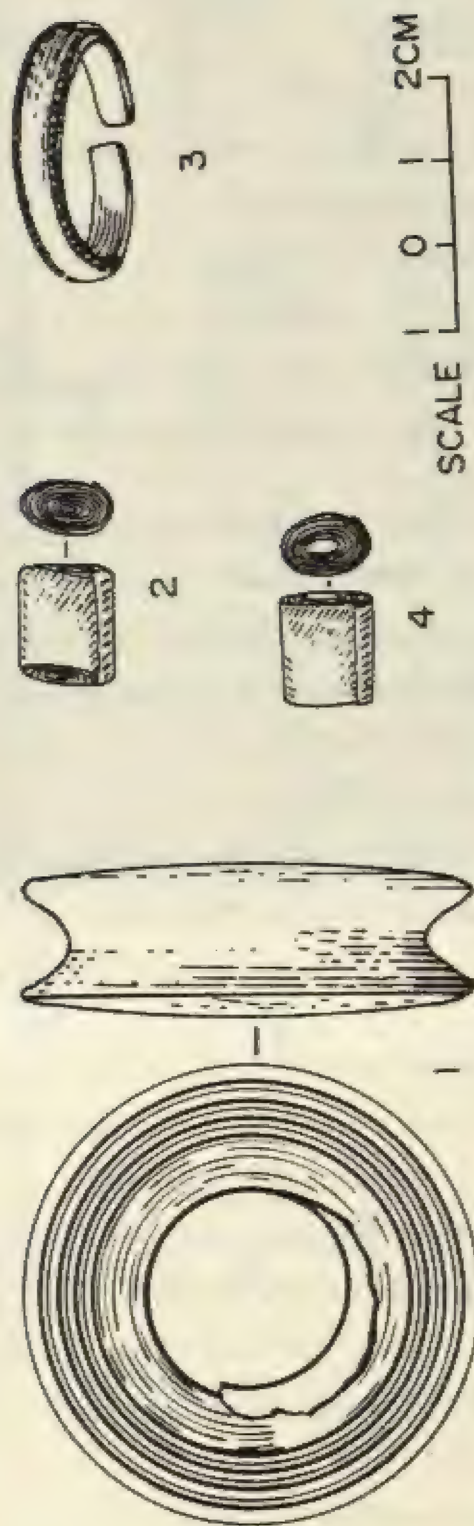


Fig. 26 : Lead objects

21. Arrowhead, tanged, with an eliptical cross-section. From early level of Period II (PNI.2: 444)

22. Ferule, thick. From mid level of Period IV (PNI.1:057).

23. Chisel with a rectangular cross-section. From the earliest level of Period IV (PNI.1:968).

24. Chisel. From Period IV (PNI.2:831).

25. Lid of indeterminate use. From Period IV (PNI.2:764).

26. Trinket. From Period IV (PNI.1:601).

(v) *Lead*

Apart from the two lead coins, other objects reported are: spools and ring, all from Period IV. Selected specimens are described below:

(fig. 26)

1. Ear stud or spool. From the earliest level of Period IV (PNI.1:312).

2. Coiled strip for preparation of spool. From Period III (PNI.1:552).

3. Ring of rectangular cross-section, with beaded border and overlapped ends. From late level of Period IV (PNI.2:325).

4. Coiled strip for preparation of spool. From Period III (PNI.1:576).

B. BEADS AND PENDANTS

The excavations at Pauni have produced a total of four hundred and eighty-two beads. Majority of them were reported from the Satavahana period although a few were found from the early levels also. The materials used for making beads were: terracotta, glass, faience, steatite, paste, lapis lazuli, lime stone, shell, bone, ivory, copper and semiprecious stones but beads made of tarracotta were more frequent. Among the shapes favoured out of a wide variety, more popular were spherical, barrel, multi-faceted, short cylindrical and long cylindrical, conical, circular, pendulous, disc etc., besides many others. The areca-nut shaped terracotta beads were in abundance. Detailed table of all shapes, materials and layers in which they occurred is furnished at the end of the chapter.

(i) *Agate Beads*

Agate is a locally available material which was used by the local craftsmen for making well finished beads. With its bands it had a very pleasing look when polished. A total of sixteen beads were found made of agate. Of that one belonged to Period I, one to Period III and fourteen to Period IV. The shapes included, one each of short cylindrical, circular, spherical, tabular, bicone, hexagonal and multifaceted, two pendulous, three barrel and four cylindrical.

(ii) *Amethyst Beads*

Amethyst, eventhough locally available, was much less used compared to other semiprecious stones. Five beads were found from the excavation here of which three were in violet and two were in purple colour. All the five were from Period IV. The shapes were one each of spherical, bicone and tabular and two disc shaped.

(iii) *Carnelian Beads*

Carnelian was one among the popular material for bead making right from the protohistoric period, probably due to its attractive orange red colour and the fine polish which it takes. Pauni was no exception; it yielded sixteen finished beads. Among them one was from Period II, four were from Period III and eleven were from Period IV. Among the shapes were one each of cylindrical, tubular, tabular, elliptical, multifaceted and spacer beads, two each of barrel and square bicone and six spherical.

(iv) *Chalcedony Beads*

Chalcedony beads were less in number, the probable reason being that the banded agate cousin of this variety might have been preferred for its added beauty of bands. A total of five beads were found of which one was from Period II, one from Period III and three were from Period IV. Among the shapes two were spherical and one each of tabular, barrel and multifaceted beads.

(v) *Chert Beads*

Chert beads from this site included the yellowish to orange yellow variety and was comparatively less polished. A total of thirteen finished beads were found of which two were from Period II, one was from Period III and ten were from Period IV. Among the shapes found were four each of circular and spherical and one each of short cylindrical, microbead, tubular, barrel and square cylindrical.

(vi) *Crystal Beads*

Crystals of various structures were much in demand for bead manufacture as shown by their number found from excavations. Majority of them were clear and transparent which might have made precision drilling much easier when done from both sides towards the centre. Even the natural crystal surfaces helped in avoiding the polishing part of manufacture in most cases. A total of thirteen beads were found of which three were from Period II and ten from Period IV. Among the shapes three were hexagonal bicone, two each of short cylindrical, spherical and barrel, one each of cylindrical, tabular, square bicone and collared multifaceted.

(vii) *Jasper Beads*

Jasper was a very popular material for bead manufacturing as shown by their high prevalence among both finished and unfinished varieties. Majority of them were deep green, few red and black specimens were also noted. A total of thirty-six finished beads were found of which one was from Period I, fourteen from Period III and twenty-one from Period IV. Among the shapes fourteen were multifaceted, six were barrel, two each of micro beads and bicone faceted and one each of circular, tabular, bicone, square bicone and square cylindrical and seven spherical.

(viii) *Lapis Lazuli Beads*

Lapis lazuli is not available anywhere in this part of the country. It might have been brought in through trade with the west Asian counterparts of the Satavahana times. Its presence from the mild levels itself points towards an early beginning to the trade between these two areas. A total of five beads were found from the excavations here, two were from Period III and three were from Period IV. The shapes noted were, two square cylindrical and one each of short cylindrical, cylindrical and spacer bead.

(ix) *Combination Beads*

Two beads were found of this type where carnelian was found in combination with chalcedony and agate on each of the bead. The carnelian flake was on the surface while the core was of chalcedony or agate. One of them belonged to Period I. The other also might have been contemporary but was found from a pit area cut in Period IV. The shapes were hexagonal bicone truncated and multifaceted.

(x) *Lime Stone Bead*

One bead belonged to this material was found in Period IV. It was of circular shape.

(xi) *Unidentified Stones*

The material on which the bead was manufactured was unidentified in two cases. Both belonged to Period IV. One of them was disc shaped while the other was barrel collared.

(xii) *Steatite Beads*

Steatite bead manufacturing might have been an industry here as a good number of beads were found. Of the twenty finished beads two were from Period II, seven from Period III and eleven from Period IV. Among the shapes were six short cylindrical, three each of micro bead and barrel, two circular, five spherical and one grooved cylindrical.

(xiii) *Paste Beads*

Eleven of the beads found were of this category. Most of them were dark coloured. One was from Period III and ten from Period IV. Six of them were short cylindrical, two of barrel and one each of cylindrical, spherical and square cylindrical shapes.

(xiv) *Faience Beads*

Faience beads were surprisingly lesser in number compared to their high percentage noted from other Satavahana sites. Only three beads were found scattered in Period I, II and IV. Two of them were short cylindrical and one barrel shaped.

(xv) *Shell Bead*

One bead made by piercing a cowrie shell was found from the upper most level here.

(xvi) *Bone and Ivory Beads*

Bone and Ivory work was practised here as can be noted from the many quality works done on different objects found in the excavations. Even beads and pendants were also made of this material. Out of the sixteen beads found, two of them were from Period II, while two other from Period III and twelve from Period IV. The shapes varied from two each of short cylindrical, cylindrical, spherical and one each of tubular, disc, *āmalaka*, spacer and grooved cylindrical and five pendants.

(xvii) *Copper Beads*

Copper was used for making beads in different periods and five of them were found from the trenches here. One of them was from Period II, two each from Period III and Period IV. Among the shapes were one each of circular, tubular, disc, barrel collared and pendulous.

(xviii) *Glass Beads*

Glass bead manufacturing as an industry was flourishing here as found from the beads of different state of finishing. Their colours also varied. A total of thirty-six finished beads were found of which two were from Period III and thirty four from Period IV. The shapes were also different, twelve were short cylindrical, three each of barrel multifaceted and square cylindrical, four of disc, two each of micro beads, tubular and tabular shapes and one each of hexagonal, irregular shaped, circular, spherical and amulet. The amulet needs special mention in that the cobalt blue coloured piece was moulded with an elephant figure with raised trunk in front of a railing on one side and a sun symbol on the reverse of this probably heart shaped thick and damaged specimen. It might have been framed in metal to facilitate suspension from a necklace.

(xix) *Terracotta Beads*

Terracotta formed the major share among all the beads found. That this was locally manufactered is evident from the few unfinished and faulty finished specimens present. Their shapes varied widely from simple shapes to complex symbolic ones like the *trirama* and *nandipada;* these might have been used as pendants. The manufacturing styles also varied from handmade to moulded. Two moulded beads, one barrel collared and another octagonal barrel collared, deserve special mention in that the entire body of each shows fine decorations. In this connection mention must be made of a stone mould from Satavahana levels found from excavations at Adam which had many impressions made of this type into it to produce similar beads. Double moulds were prepared from it and struck together later to form a complete bead.

Among the terracotta beads maximum number was the areca-nut shaped ones distributed in all the periods of occupation here. A total of two hundred and seventy-six beads were foud of which twenty-three were of Period I, thirty-three of Period II, forty-six of Period III and one hundred and seventy-four of Period IV. The shapes were one hundred and seventy-eight areca-nut beads, one each of annular, short cylindrical, cylinder collared, *āmalaka*, square cylinder, *nandipada* shaped pendant and spacer, seven cylindrical, three each of cylindrical with segments and decorated collared four elliptical, eight disc, fourteen spherical, six hemi-spherical, eight tabular collared, one of them with stamped decoration over it, fifteen pendulous and two each of bicone and barrel collared, nineteen conical.

(xx) *Unfinished Beads*

Unfinished or semifinished beads were found in good numbers from the trenches which shows that the bead manufacturing industry flourished here in those times. Most of the locally available semiprecious stones were used by the industry here. Many beads of agate, carnelian, crystal, jasper and even terracotta were found in semi or faulty finished state. Stone beads were found in different stages of finishing ranging from the initial cutting to fully cut, cut and polished with different stages of polishing-partly drilled or faulty drilled state. One of the moulded terracotta bead of octagonal barrel collared shape with decorated surfaces had no hole across showing that it was damaged while firing and in all probability never put to use. A few partly drilled beads were found broken, probably during drilling phase and hence discarded. A few finely polished and finished beads were found not drilled and the only possible reason could be that they were lost at that stage never to be recovered again until this excavation.

(xxi) *Etched Beads*

A total of ten beads with etchings were found from the excavation (pl. XVIII; fig. 29) .All were white etched patterns on the bead surface. All etched beads were from Period IV except one from Period III. The designs etched were mostly geometrical patterns. Eight out of the ten beads were on carnelian while one was etched on black jasper and one on glass.

(xxii) *Carnelian Etched Beads*

The shapes varied from spherical to tabular, cylindrical and square cylindrical. Three spherical beads were found, the patterns etched from six circles with a dot each inside to white dots done in parallel circles all around and pentagons side by side all around like a hemispherical surface except around the hole drilled where a circle was done. One tabular bead found was from Period III. It had radial dashed all around on the periphery only. The cylindrical bead had two border lines around, one each at either end and hexagons and pentagons with dots inside in between them. Three square cylindrical beads were found two of which had transverse parallel lines, both the beads were damaged. The third had parallel angular lines running zig-zag on the four sides.

(xxiii) *Black Jasper Bead*

This was barrel shaped and had two parallel lines each at either end and pentagons in between them.

(xxiv) *Glass Bead*

This was a spherical bead of dark colour with spiral wavy lines starting from the hole and all running around.

The following specimens are illustrated (pls. XVI; fig. 27)

1. Terracotta, double moulded elliptical double collared bead. Entire surface area except the collars shows decorative patterns all around. From Period I (PNI. 1 : 409).
2. Terracotta, double moulded bead, octagonal barrel double collared shape with all the faces showing different decorations. This bead was probably never used as the hole across was found damaged and blocked, may be during the baking stage. From Period IV (PNI. 1 : 464).
3. Stone, heavy disc bead of hard stone. From Period IV (PNI. 1 : 556).
4. Jasper, red coloured, well finished spherical bead. From Period IV (PNI.1:194).
5. Jasper, deep green coloured, well finished spherical bead. From Period IV (PNI. 1 : 185).
6. Crystal, well finished, transparent, spherical bead. From Period II (PNI. 1 : 920).
7. Carnelian, square bicone bead with truncated ends. From Period IV (PNI. 1 : 953).
8. Crystal, transparent bead, multifaceted collared. From Period IV (PNI. 1 : 365).
9. Glass, cobalt blue bead, long square cylindrical with one end broken. From Period IV (PNI. 1 : 252).

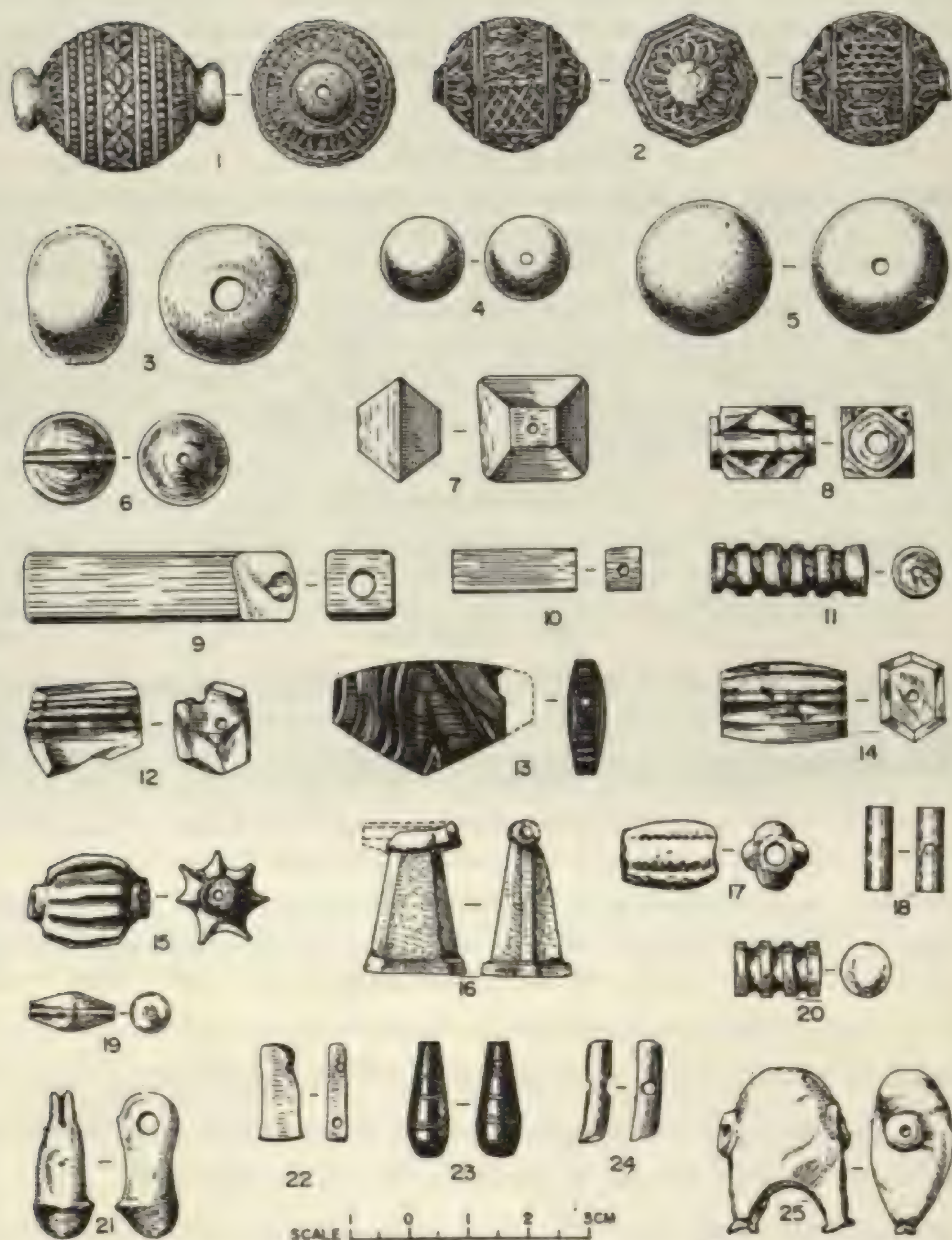


FIG. 27 : *Beads and pendants*

10. Lapis lazuli, long square cylindrical bead. From Period III (PNI. 1 : 873).
11. Terracotta, segmented cylindrical bead with six segments. From Period IV (PNI. 1 : 155).
12. Crystal, transparent light blue bead, hexagonal barrel. From Period IV (PNI. 1 : 120).
13. Agate, finely finished but damaged pendant. From Period IV (PNI. 1: 232).
14. Crystal, finely finished transparent bead, hexagonal barrel. From Period II (PNI. 1 : 897).
15. Terracotta, barrel collared with deeply grooved surface. From Period IV (PNI. 1 : 590).
16. Terracotta, pendulous, bell shaped with hexagonal section. From Period III (PNI. 1 : 819).
17. Steatite, light coloured bead, longitudinally grooved cylindrical. From Period IV (PNI. 1 : 427).
18. Carnelian, finely finished cylindrical bead with the hole drilled transversely in the middle. Might have been used as a spacer bead. From Period IV (PNI. 1 : 029).
19. Carnelian, well finished barrel bead. From Period IV (PNI. 1 : 714).
20. Terracotta, unfinished bead, segmented cylindrical with four segments. Hole not drilled. From Period IV (PNI. 1 : 709).
21. Terracotta, pendulous bead. From Period IV (PNI. 1 : 320).
22. Lapis Lazuli, flat bar shaped spacer bead with two parallel transverse holes. From Period IV (PNI. 1 : 941).
23. Agate, well finished drop shaped pendant. From Period IV (PNI. 1 : 634).
24. Terracotta, cylindrical with a transverse hole across the centre. Might have been used as a spacer bead. From Period IV (PNI. 1 : 532).
25. Terracotta, *nandipada* shaped pendant. From Period IV (PNI. 1 : 548).

(pl. XVII; fig. 28)

26. Jasper, well finished black jasper bead, barrel shaped. From Period I (PNI. 1 : 946).
27. Amethyst, violet coloured, well finished tabular bead. From Period IV (PNI. 1 : 192).
28. Carnelian, unfinished bead, barrel shaped, well polished but hole not drilled. From Period IV (PNI. 1 : 340).
29. Agate, finely finished long barrel bead. From Period I (PNI. 1 : 845).
30. Jasper, deep green coloured, well finished multifaceted bead. From Period IV (PNI. 1 : 075).
31. Crystal, unfinished bead, hexagonal bicone shaped. Hole not drilled. From Period II (PNI. 1:806).
32. Jasper, unfinished black jasper bead. Barrel shaped, hole partly drilled from one side. From Period IV (PNI. 1 : 661).
33. Jasper, deep green coloured, well finished square cylindrical bead. From Period IV (PNI. 1 : 038).



FIG. 28 : *Beads and pendants*

34. Jasper, deep green coloured, well finished bicone truncated bead. From Period III (PNI. 1 : 715).

35. Jasper, deep green coloured, multifaceted bead. From Period IV (PNI. 1 : 817).

36. Terracotta, decorated collared bead of tabular shape. Double moulded with floral motif on its surface. From Period IV (PNI. 1 : 710).

37. Chalcedony, multifaceted, carnelian flakes might have been struck on to its faces as shown by a tiny fragment stricking. From Period IV (PNI. 1 : 166).

38. Chalcedony, hexagonal bicone bead of chalcedony with carnelian flakes struck on to the faces, two of which are still attached to it. From Period IV (PNI. 1 : 872).

39. Agate, unfinished bead, flat biçone truncated, finely cut and polished, hole not drilled. From Period IV (PNI. 1 : 418).

40. Carnelian, well finished flat bicone bead with truncated ends. From Period IV (PNI. 1 : 870).

41. Agate, finely finished bead, octagonal barrel with truncated ends. From Period IV (PNI. 1 : 139).

42. Glass, moulded amulet, square shaped, corner damaged (pl. XV B). An elephant to right with raised trunk in front of a railing. The flan has traces of groove all around for attaching to some metal frame with a hook or ring for suspension.[1] From Period IV (PNI. 1 : 573).

(pl. XVIII; fig. 29)

1. Jasper, white etchings over a black jasper barrel bead. Pentagons etched between a pair of twin parallel lines each at either ends. Around the hole two concentric circles are etched from which the sides of the pentagon spring. From Period IV (PNI. 1 : 384).

2. Glass, dark coloured spherical bead with white spiral patterns starting from the hole and running all around etched on it. From Period IV (PNI. 1 : 721).

3. Carnelian, spherical bead with white dots etched in parallel rows all over the surface. From Period IV (PNI. 1 : 654).

4. Carnelian, tabular bead with radial dashes in white starting from the periphery etched. From Period III (PNI. 1 : 782).

5. Carnelian, small spherical bead, the top and bottom show a circle with the hole at its centre. The same design is etched on the body, but a dot takes place of the hole. From Period IV (PNI. 1 : 397).

6. Carnelian, white etchings on the small spherical bead. The top and bottom have the design of a square with the hole at its centre. Five irregular pentagons are formed by lines connecting the corners of the square with the corners of the pentagon. From Period IV (PNI. 1 : 328).

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[1]For similar glass amulet showing elephant to right with raised trunk see H.D. Sankalia *et al, The Excavations at Maheshwar and Navadatoli, 1952-53*, Poona, Baroda, 1958, p.220, Pl.XVIII-b.

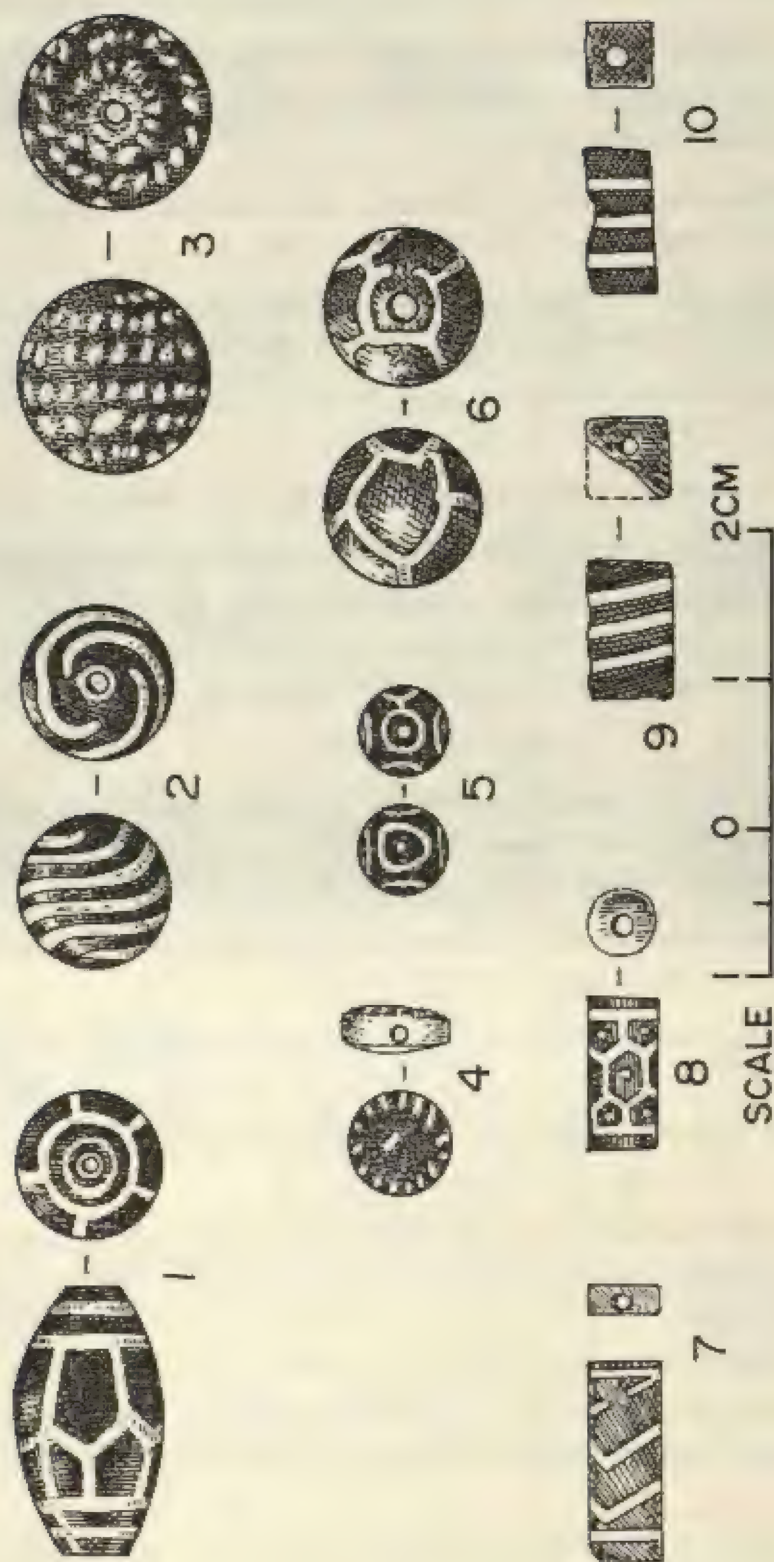


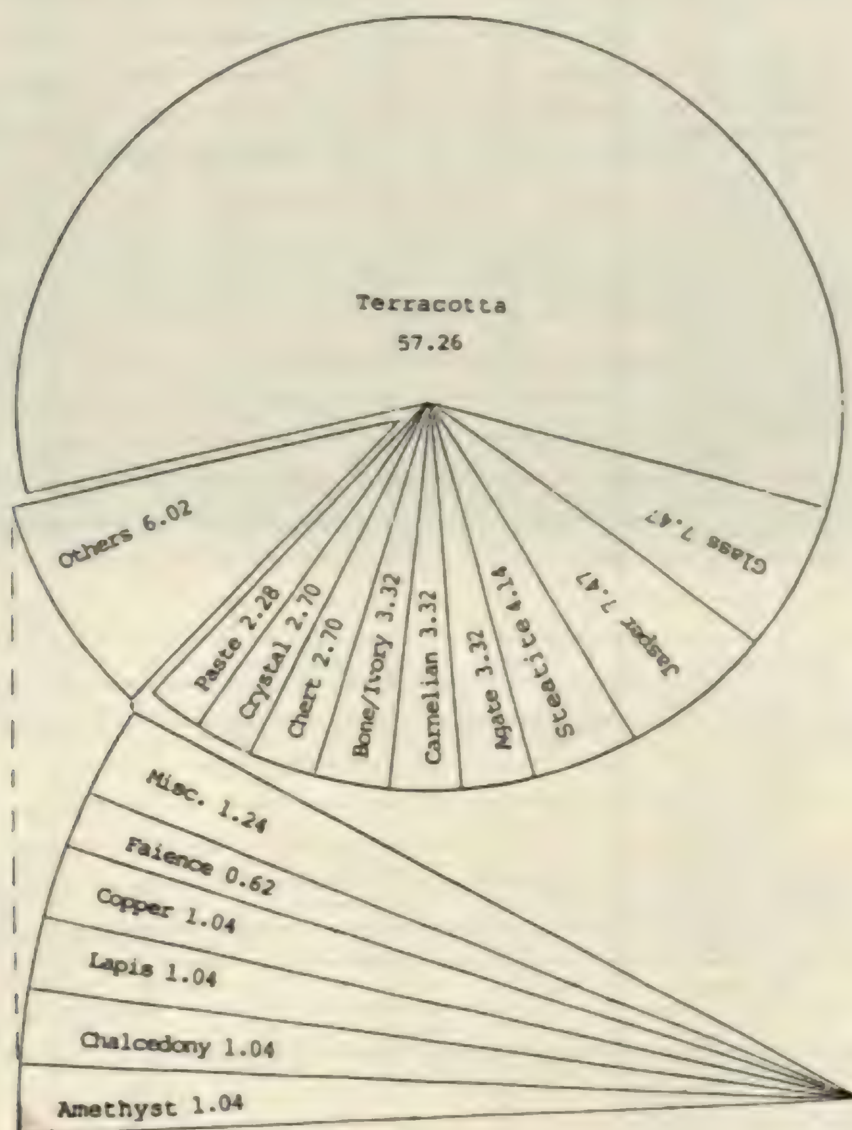
Fig. 29 : *Etched beads*

7. Carnelian, flat bar shaped bead with two lines on the two edges and three parallel zig-zag lines between them etched in white. From Period II (PNI. 1 : 981).

8. Carnelian, cylindrical bead. Two transverse lines on the two edges with hexagons and pentagons with a dot each inside etched in white over the surface. From Period IV (PNI. 1 : 792).

9. Carnelian, square cylindrical bead, damaged. Three white parallel lines etched transversly, faded. From Period IV (PNI. 1 : 109).

10. Carnelian, square cylindrical bead, damaged. Three white parallel lines etched transversely around. From Period IV (PNI. 1 : 776).



FINISHED BEADS : PAUNI 1994

Layers	Period	Tubular	Areca nut	Annular	Short Cylinder	Micro bead	Circular	Cylindrical	Cylinder segmented	Spherical	Hemispherical	Tabular	Barrel	Elliptical	Disc	Bicone	Hexa./Octa. Bicone	Cylinder collared	Barrel collared	Tabular collared	Flat Bicone	Amalaka	Conical	Multifaceted	Square Cylinder	Pendulous	Cowrie	Bicone Faceted	Decorated Collared	Nandipada	Amulet	Spacer	Grooved Cylinder	Multifaceted Collared	Irregular	Total
1		2	19		3	3	5			9		2	3		7	1	2		1	2	1	1	2	1	3	5	1					1	1			75
2	Period IV	1	54	1	13	3	4	6	1	10	2	4	5	3	2	3	1	1	2	4	1		4	4	4	5			1	1		1		1	1	143 (326)
3		3	32		11	1	2	4	2	4	1	2	7	1	3		2			2	2	1	8	8	1	5		2	1		1	1	1			108
4	Period III		29		3	1		6		13	3		7		2	1			1				4	6	1	6										83
5			11		1					4							1						1	1		1										20
6	Period II		16		2			1		4					1											1						1				26 (46)
7	Period I		17		1					2			2	1	2									1					1							27
Total No		6	178	1	34	8	11	17	3	46	6	8	24	5	17	5	6	1	4	8	4	2	19	21	9	23	1	2	3	1	1	4	2	1	1	482
Percentage		1.24	36.93	0.21	7.05	1.66	2.28	3.53	0.62	9.54	1.24	1.66	4.98	1.04	3.53	1.04	1.24	0.21	0.83	1.66	0.83	0.41	3.94	4.36	1.87	4.78	0.21	0.41	0.62	0.21	0.21	0.83	0.41	0.21	0.21	

Table showing periodwise distribution of bead shapes

FINISHED BEADS : PAUNI 1994

Shapes / Material	Areca nut	Annular	Short Cylinder	Micro bead	Circular	Cylindrical	Cylinder Segmented	Spherical	Hemispherical	Tubular	Tabular	Band	Elliptical	Disc	Bicone	Hexa./Octa. Bicone	Cylinder Collared	Barrel Collared	Tabular Collared	Flat Bicone	Amalaka	Conical	Multi Faceted	Square Cylinder	Pendulous	Cowrie	Bicone Faceted	Decorated Collared	Nandipada	Amulet	Spacer	Grooved Cylinder	Multi Faceted Collared	Irregular	Total
Terracotta	178	1	1			7	3	14	6				4	8	2		1	2	8		1	19		1	15			3	1		1				276
Glass			12	2	1			1		2	2	3		4		1							3	3						1				1	36
Jasper				2	1			7			1	6			1					1			14	1			2								36
Steatite			6	3	2			5				3																				1			20
Agate			1		1	4		1			1	3			1	1							1		2										16
Carnelian						1		6		1	1	2	1							2			1								1				16
Bone/Ivory			2			2		2		1				1							1				5						1	1			16
Chert			1	1	4			4		1		1												1											13
Crystal			2			1		2			1	2				3				1													1		13
Paste			6			1		1				2												1											11
Amethyst								1			1			2	1																				5
Chalcedony								2			1	1											1												5
Lapis Lazuli			1			1																	2								1				5
Copper					1					1				1				1							1										5
Faience			2									1																							3
Combinations																1							1												2
Un-Identified Stones														1				1																	2
Lime Stone					1																														1
Shell																										1									1
Total	178	1	34	8	11	17	3	46	6	6	8	24	5	17	5	6	1	4	8	4	2	19	21	9	23	1	2	3	1	1	4	2	1	1	482

Table showing materialwise distribution of bead shapes

FINISHED BEADS : PAUNI 1994

Layers	Period / Material	Terracotta	Glass	Jasper	Steatite	Agate.	Carnelian	Bone/Ivory	Chert	Crystal	Paste	Amethyst	Chalcedony	Lapis Lazuli	Copper	Faience	Combinations	Unidentified Stones	Lime Stone	Shell	Total	Percentage
1	Period IV	32	9	7	2	4	2	2	7	2		3	1				1	2		1	75	
2	Period IV	88	14	2	6	4	4	4	2	4	6	2	1	3	1						143	
3	Period IV	54	11	12	3	6	5	6	1	4	2		1		1	1			1		108	67.84
4	Period III	46	2	14	7	1	4	2	1		1		1	2	2						83	17.22
5	Period II	14					1	1	1	1			1			1					20	
6	Period II	19			2			1	1	2					1						26	9.54
7	Period I	23		1		1										1	1				27	5.60
Total No.		276	36	36	20	16	16	16	13	13	11	5	5	5	5	3	2	2	1	1	482	
Percentage		57.26	7.47	7.47	4.14	3.32	3.32	3.32	2.70	2.70	2.28	1.04	1.04	1.04	1.04	0.62	0.41	0.41	0.21	0.21	100	

Table showing Periodwise distribution of bead materials

C. BANGLES

Bangles were recovered very meagre in number which include a single specimen of ivory, bone, shell, terracotta and two of copper and glass. Out of these, a copper (PNI. 2 : 234), ivory (PNI. 1 : 773) and a bone (PNI. 1: 597) specimen have been described elsewhere (See fig.23, 14; fig. 34, 13 & 31).

The following specimens are illustrated:

(pl. XIX)

1. Fragment of a bangle of shell, rectangular in section. From Period IV (PNI. 1 : 956).
2. Fragment of a copper bangle, rectangular in section. From Period II (PNI. 1: 518).
3. Fragment of a bangle of dark coloured glass, notched at regular intervals. Surface collection (PNI. 1 : 599).
4. Fragment of a bangle of green colour, surface treated zig-zag band in yellow, planoconvex in section, glass. Surface collection (PNI. 1 : 613).
5. Fragment of a terracotta bangle, planoconvex in section. From Period IV (PNI. 1 : 072).
6. Terracotta fragment of a bangle circular in section, centrally grooved and side bears oblique cut at regular intervals. From Period IV (PNI. 1 : 686).

D. GLASS OBJECTS

Other than an amulet and beads, the site has reported an intact flask (*kundikā*) of pale-green colour (pl. XX). It is prepared out of blowing technique, shows globular body, narrow neck with tapering sides and flared mouth with a ridge below. Its base is concave and the body possesses a thin section full of air bubbles (PNI. 1 : 998). Almost analogous flasks have been reported from Taxila[1] and Sirkap[2].

E. TERRACOTTA OBJECTS

(i) *Human Figurines*

The excavation yielded human figurines of both single and double mould varieties, primarily from Period III and IV. Out of which varieties of single mould specimens are assigned to Period III, while double mould products to Period IV. It may be repeated that finding of typical Sunga terracotta from its regular horizon corroborates the chronology arrived at earlier in the *stupa* cuttings; there only the sculptural remains of that period are reported.

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[1] B.B. Lal, "Examination of some ancient Indian glass specimens", *Ancient India*, No. 8, 1952, p. 222.

[2] John Marshall, "Taxila-Sirkap", *Annual Report of the Archaeological Survey of India*, 1919-20, Calcutta, 1992, p.19, pl. IX-3.

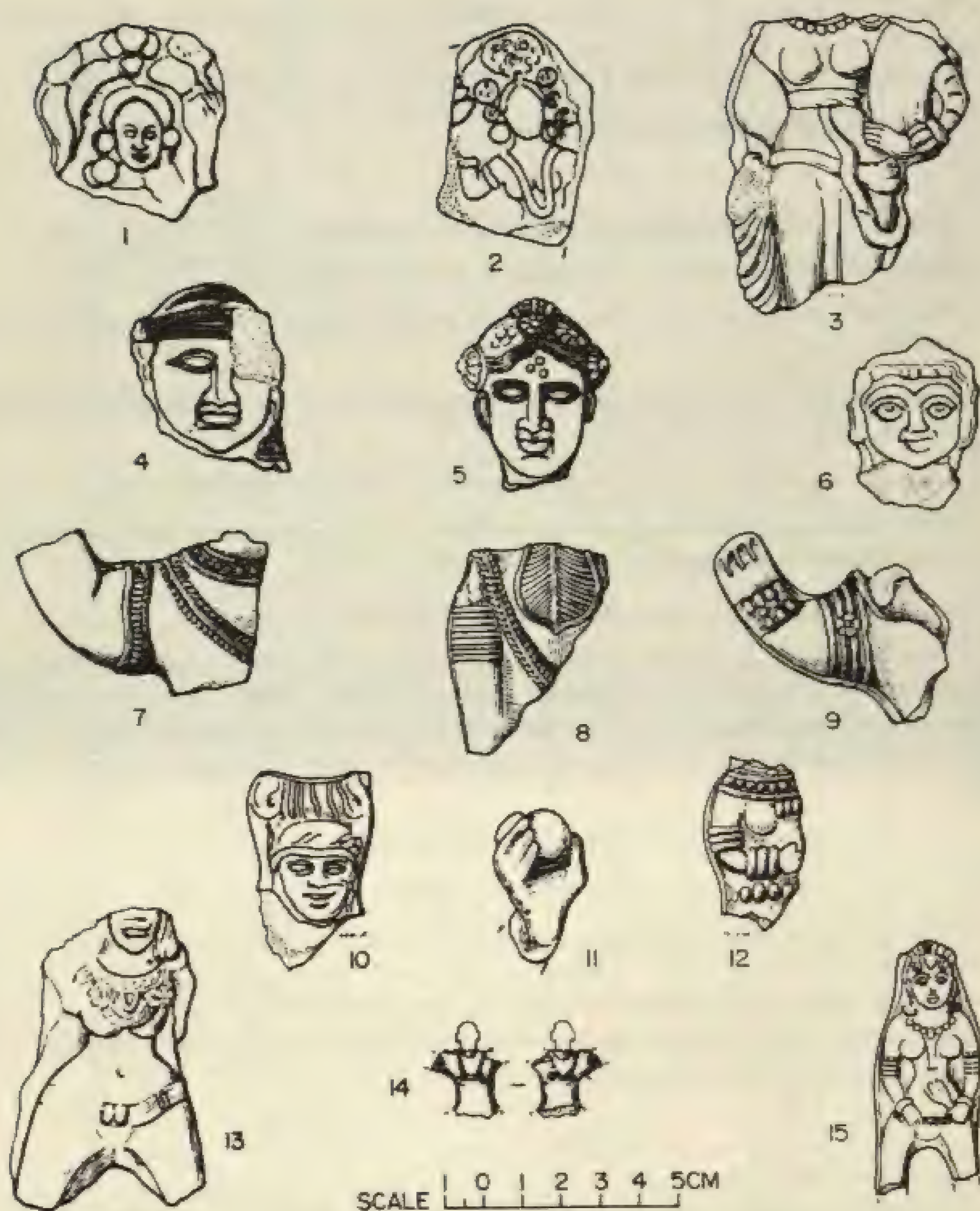


FIG. 30 : *Terracotta human figurines. 1-3. Period III; and the rest, Period IV*

The following specimens are illustrated below :

(pl. XXI; fig. 30)

1. Terracotta bust of mother goddess, single mould, very lively. From Period III (PNI. 1 : 633).
2. Terracotta, single mould, fragment of a *mithuna*, right portion of male and portion below waist-line of female missing. Elaborate coiffure comparable to those reported at other Sunga sites. From Period III (PNI. 1 : 390).
3. Terracotta female torso, single mould, left arm akimbo, broad plaited scarf covers both the shoulders, wearing beaded *kaṇṭhahāra* and lotus shaped wristlet. From Period III (PNI. 2 : 765).
4. Fragment of a terracotta human head, portions of left eye and forehead damaged, double mould, wearing closely fitted headgear. From Period IV (PNI. 1 : 336).
5. Fragment of a terracotta female head showing an elaborate coiffure, central portion of forehead bears three dots, may be taboo-mark, double moulded. From Period IV (PNI. 1 : 214).
6. Terracotta human head, double mould. From Period IV (PNI. 1 : 241).
7. Fragment of a moulded human figurine with raised right hand, broken, wearing *kaṇṭhahāra*, *chhannavīra* and armlet. From Period IV (PNI. 1 : 206).
8. Fragment of a female figurine, double moulded, portion of upper left back, showing stylized hair-do of leaf-shape, cross belt running across the left shoulder, coiled armlet in the left arm. From Period IV (PNI. 1 : 160).
9. Terracotta fragment of raised right hand and arm-pit of human figurine, double moulded, wearing ornaments like wristlet and armlet. From Period IV (PNI. 1 : 237).
10. Terracotta double moulded, head of a male figurine with a broad coiffure, under-reliefed of *jaṭā – mukuṭa* type. From Period IV (PNI. 1 : 164).
11. Terracotta fragment of right arm below wrist, holding a ball. From Period IV (PNI. 1 : 891).
12. Terracotta fragment of the right front portion of a torso, heavily ornamented with beaded *kaṇṭhahāra*, armlet, wristlet and *mekhalā*. From Period IV (PNI. 1 : 238).
13. Terracotta mother goddess, double mould, below knee and above forehead broken, other details are under reliefed. From Period IV (PNI. 1 : 240)
14. Torso of a male figurine, double mould, wearing a necklace; the backside is identical. It might be of some divinity. From Period IV (PNI. 1 : 127).
15. Terracotta female figurine, double mould, under-reliefed, both hands rest over *kaṭi – bhaṅga*, left seen holding a bunch of flowers, personal ornaments seen are ear ornaments, necklace, armlets, wristlets and *mekhalā*. From Period IV (PNI. 1 : 189).

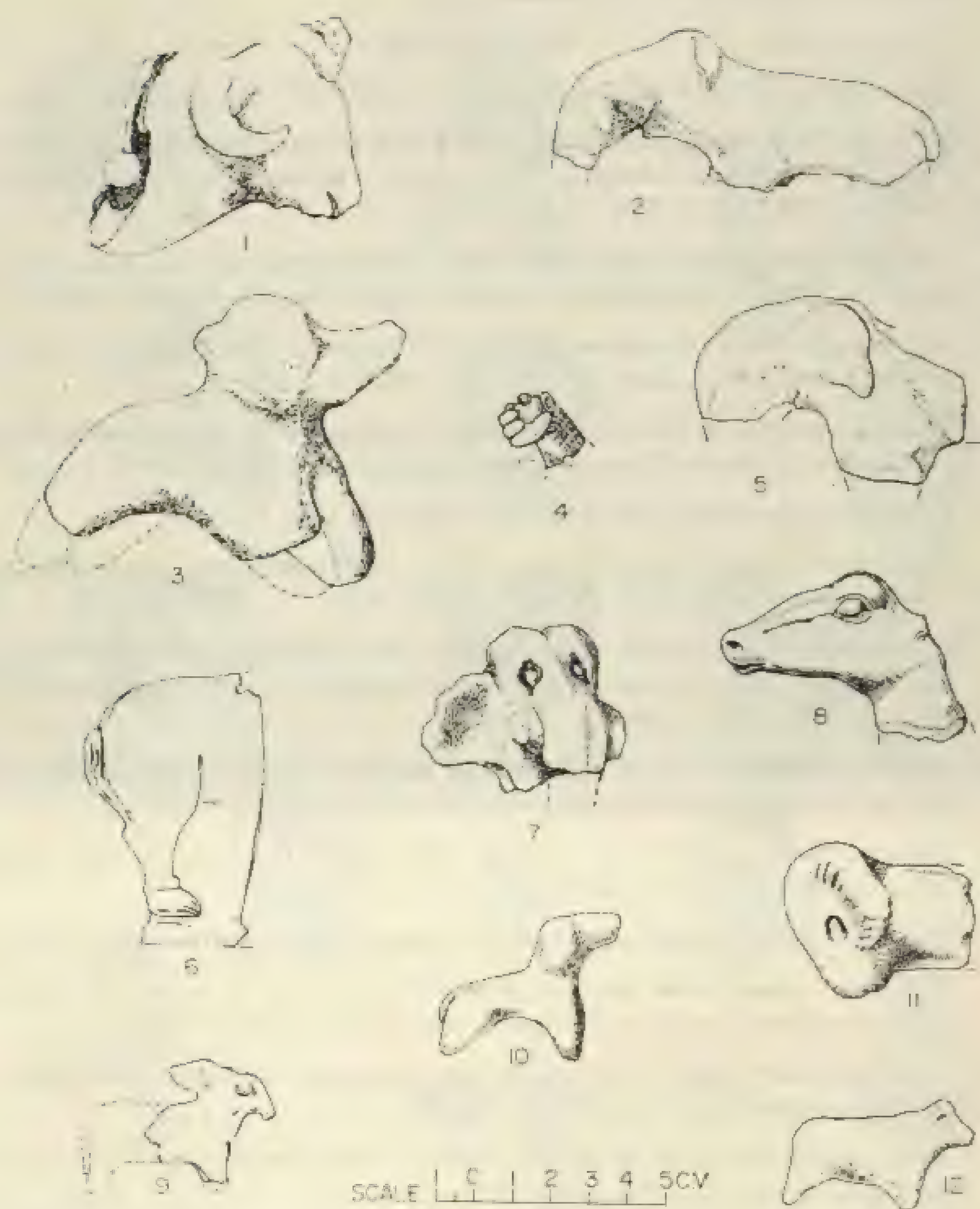


FIG. 31 : *Terracotta animal figurines, Period IV*

(ii) *Animal Figurines*

The excavation yielded both double-moulded and hand made animal figurines. Period IV has the largest number of animal figurines. Among these, representations of elephants are more than the other types of animal.

Representative examples are illustrated below:

(pl.XXII: fig. 31)

1. Terracotta fragment of a ram used as wheeled toy, head portion, hand made and luted to wheel turned globular body showing perforation mark. From Period IV (PNI. 1 : 550).
2. Terracotta fragment of an elephant, hand made. From Period IV (PNI. 1 : 352).
3. Terracotta fragment of an animal figurine, probably a dog, hand made. From Period IV (PNI. 1 : 579).
4. Terracotta head fragment of a stylized lion, heavily maned and robust face, neck-section bears a perforation across, double moulded. From Period IV (PNI. 1 : 602)
5. Terracotta fragment of an elephant, hand made. From Period IV (PNI. 1 : 892).
6. Fragment of a terracotta figurine of a horse, double moulded, only hind portion survives, flat base. From Period IV (PNI. 1 : 322).
7. Terracotta head of an elephant with incised eyes, fan-shaped right ear and lower portion survives, flat base. From Period IV (PNI. 1 : 373).
8. Terracotta fragment of head of a horse, hand made, fine workmanship. From Period IV (PNI. 1 : 625).
9. Terracotta fragment of a humped bull, hand made, crude workmanship. From Period IV (PNI. 1 : 743).
10. Terracotta animal figurine, probably of a dog, hand made, well finished. From Period III (PNI. 1 : 159).
11. Terracotta fragment of a ram figurine with punched eyes, drooping horns bear a series of notches, hand made. From Period III (PNI. 2 : 913).
12. Terracotta fragment of a bull figurine, hand made. From Period IV (PNI. 1 : 822).

(pl. XXVI A)

1. Terracotta caparisoned horse, majestically standing, double mould. From Period IV (PNI. 1 : 997).

(iii) *Miscellaneous Objects*

In addition to terracotta figurines described above, a variety of household objects and other finds of terracotta were recovered from the excavation at various levels. These objects include votive tanks, ear studs, skin rubbers, spindle whorls etc.

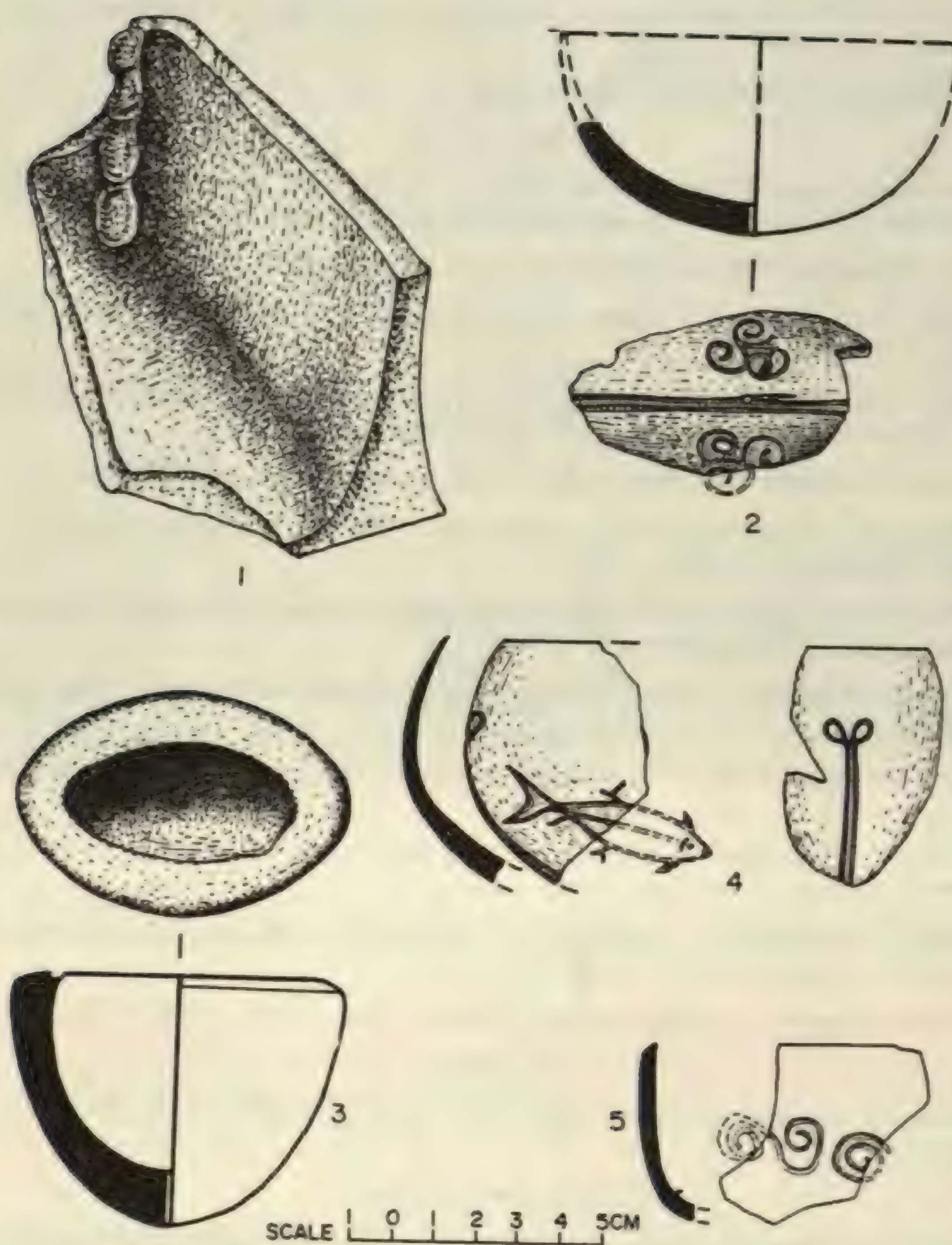


FIG. 32 : *Terracotta miscellaneous objects*

(a) *Votive Tanks*

The excavation yielded about half a dozen votive tanks, all reported from Period IV. Foreign origin has been suggested and attributed to the Parthians who are said to be associated with the mother goddess cult.[1]

A better preserved specimen is illustrated below : (fig. 32, 1)

1. Fragment of a votive tank, hand made, consists of a fragmentary walled enclosure, attached to it are steps, a common element in the representation of votive tanks noticed at most of the early historical sites. From Period IV (PNI. 1 : 070).

(b) *Skin Rubbers* (pl. XXIII)

Skin rubbers in the archaeological reports at times, have loosely been termed as 'flesh-rubbers'. These rubbers generally show square and rectangular shape, occasionally circular and oval but rarely plano-convex. The five specimens illustrated here are of common oblong and square types and are attributed to Period IV. All bear series of notches on both the sides for an effective rubbing of skin.

(c) *Head Scratcher* (fig. 32, 2-5)

1. Terracotta head-scratcher of red ware bearing white slip, on either side of it can be seen three inter-connected loops, each terminating into spirals, separated by two horizontal lines of cord impression. From Period II. (PNI. 1 : 965).
2. Terracotta head scratcher of plain variety with flat top and diminishing sides, ovalish in section having a perforation in the centre of base. From Period IV (PNI. 1 : 055).
3. Terracotta head scratcher, red ware, exterior surface treated with white polished slip, bears decoration of a fish, showing tail portion of it and a cord impression forming two loops along its side edge. From Period II (PNI. 1 : 896).
4. Terracotta fragment of a head scre'cher, red ware, exterior surface bears decoration showing incised design of connected opposite spirals. From Period III.

(pl. XXIV)

1. Terracotta spindle whorl with biconvex sides and projected central hub. From Period IV (PNI. 2 : 627).
2. Terracotta spindle whorl similar to the above with a bigger projected central hub. From Period IV (PNI. 2 : 627).
3. Toy wheel made of gritty micacious red ware with a hole in the centre to facilitate axle. From Period III (PNI. 1 : 511).
4. Fragment of a terracotta wheel showing on one side spokes, each of the bars running from hub to rim of the wheel. From Period IV (PNI. 1 : 354).

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[1] J.F. Balkiston, "Explorations at Sirkap", *Archaeological Survey Annual Report*, 1924-25, p. 50, Pl. 13, Fig. 3; D.H. Gordon "The Goddess of Gandhara", Taxila (Sirkap), 1944-45, *Ancient India*, No. 4, 1947-48, p. 78, Pl. XII; V.S. Agrawala "The Terracottas of Ahichchhatra", *Ancient India*, No. 4, 1947-48, p. 125.

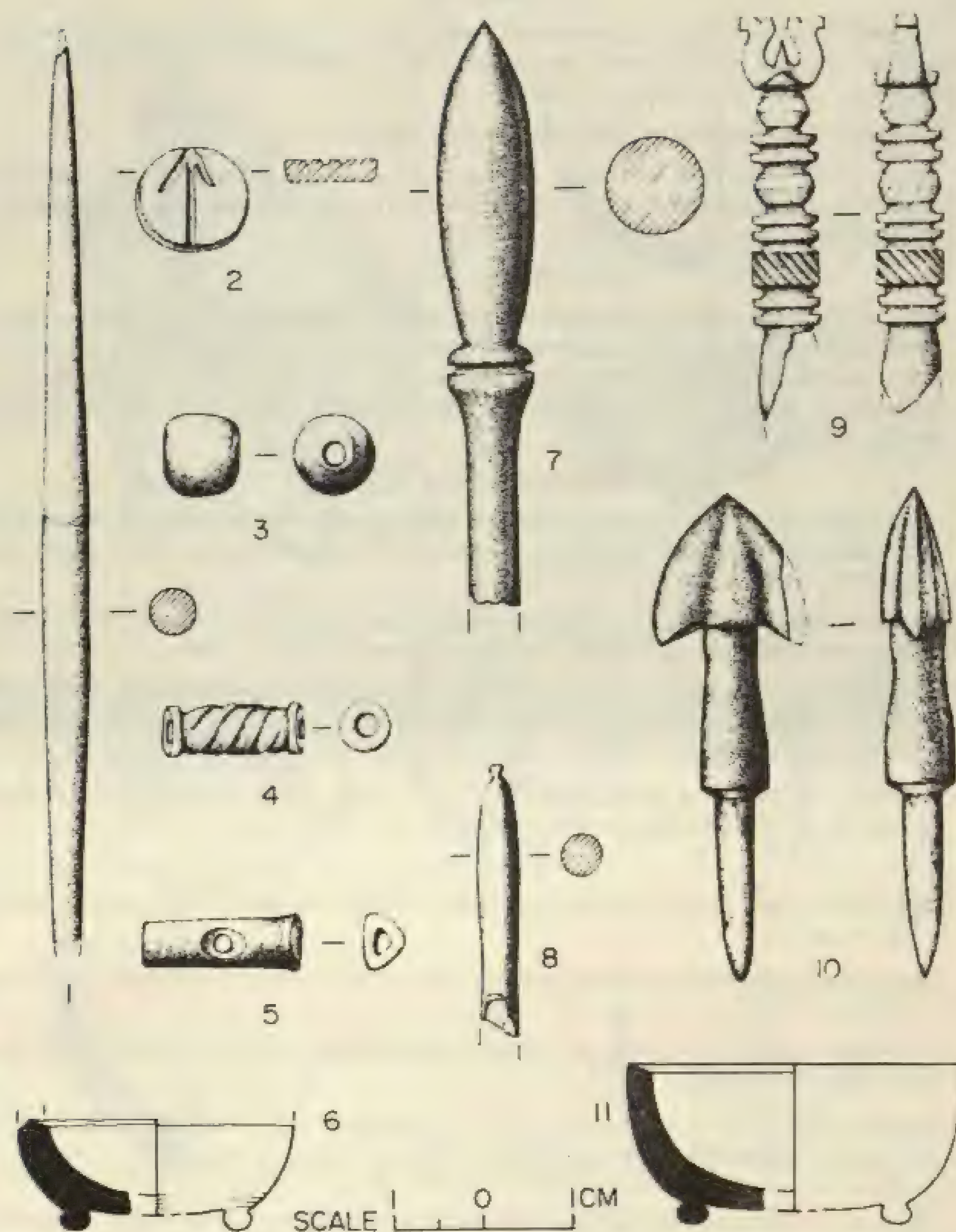


Fig. 33 : *Ivory and bone objects*

5. Terracotta gamesman with tapering sides and circular flat base showing a depression on top. From Period II (PNI. 1 : 964).

6. Terracotta pendant, conical-shape. From Period II (PNI. 2 : 925).

7. Terracotta, cylindrical shaped gamesman with tapering sides and flat circular base, top mutilated. From Period IV (PNI. 2 : 978).

(pl. XXVI - B)

1. Terracotta fragment of an oblong shaped dice (4 × 1.5 cm) showing four faces each bears circlets of varying number. From Period IV (PNI. 1 : 23).

2. 'Axe' shaped object dressed in steatite (4.3 × 4.3 × 7 cm) with tapering sides, flat top with a vertically cut oblong socket on either sides and edged bottom possibly used as hone. From Period IV (PNI. 1 : 700).

3. Small rectangular shaped sponge tablet (3.5 × 2.2 × 1.5 cm) of terracotta showing porous surface, possibly used as weight. From Period IV (PNI. 1 : 582).

4. Fragment of a terracotta disc (Dia. 5.5 cm) having couple of perforations decorated with dotted incisions forming incomplete geometric design. From Period IV (PNI. 1 : 977).

5. Fragment of a bell-shaped terracotta pendant (2 × 1.6 cm) with multifaceted sides forming a hexagon on plan. From Period IV (PNI. 1 : 495).

6. Terracotta ear stud (Dia. 2 cm) decorated on one side with curved radiating lines, the space in between is filled with a series of pellets. From Period IV (PNI. 1 : 286).

7. Terracotta ear stud (Dia. 2.8 cm) bearing incised dots extensively on either side, without forming any pattern. From Period IV (PNI. 2 : 972).

8. Sand stone ear stud (Dia. 3.3 cm) with a white coated surface decorated on one side with radiating rays. From Period IV (PNI. 1 : 533).

9. Black jasper ear stud (Dia. 4.5 cm) with well polished surface, decorated exterior shows radiating rays. From Period IV (PNI. 1 : 967).

10. Fragment of a black jasper ear stud planoconvex surface treated with fine polish. From Period IV (PNI. 1 : 266).

F. IVORY AND BONE OBJECTS (pls. XXVII-XXVIII ; figs. 33 & 34)

Some of the best carved specimens of ivory and bone have been encountered at the site. A tabular unfinished bead of ivory suggests its working at the site, as one of the flourishing crafts. In the limited area of cutting encouraging number of finished products have been found, assigned to Period II to Period IV. Selected specimens have been discussed below:

(fig. 33)

1. Ivory : Knitting needle, either end tapering. From Period II (PNI. 1 : 969).

2. Bone : Disc-shaped seal with an arrow engraved on it. From Period IV (PNI. 2 : 704).

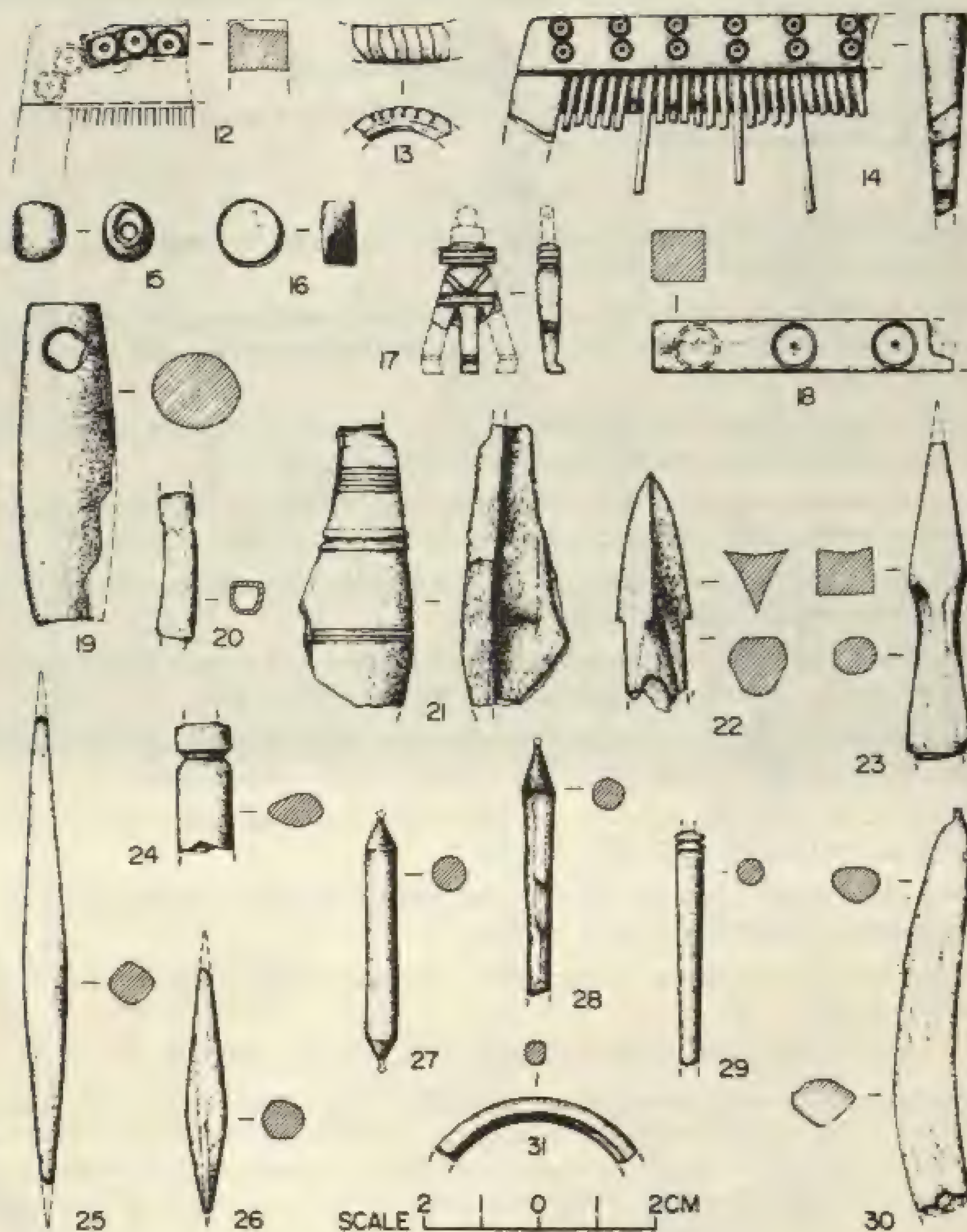


FIG. 34 : *Bone and ivory objects*

3. Ivory : Bead, circular, well finished. From Period IV (PNI. 1 : 124).

4. Ivory : A well finished, cylindrical collared bead with spiral grooves on surface. From Period IV (PNI. 1 : 370).

5. Ivory : Spacer bead, one end truncated, other thickened, triangular in cross-section. From Period IV (PNI. 1 : 955).

6. Ivory : Fragment of a casket, ring base. From Period IV (PNI. 1 : 696).

7. Ivory : Fragment of a hair pin or kohl-stick with a conical top, tip broken. From Period V (PNI. 2 : 636).

8. Ivory : Knitting needle, one end broken. From Period IV (PNI. 1 : 362).

9. Ivory : Kohl-stick or hair pin, lower portion broken, upper portion bears *triratna* sign followed by decorated segments. From Period III (PNI. 1 : 800).

10. Bone : Arrowhead, burnt black. From Period IV (PNI. 1 : 212).

11. Ivory : Fragment of a casket with featureless rim obliquely cut, ring base. From Period IV (PNI. 1 : 880).

(fig. 34)

12. Bone : Fragment of a comb with five circles forming an arc on the surface, two of which are missing. From Period IV (PNI. 1 : 457).

13. Bone : Fragment of a bangle, plano-concave in section, with a series of notches across the upper circumference. From Period IV (PNI. 1 : 597).

14. Bone : Comb, decorated with a panel of incised with two concentric circles. From Period II (PNI. 1 : 951).

15. Bone : Short cylindrical bead. From Period IV (PNI. 1 : 293).

16. Ivory : Tabular shaped unfinished bead. From Period IV (PNI. 1 : 829).

17. Bone : *Triratna* type pendant, upper and lower portions broken. From Period IV (PNI. 2 : 834).

18. Bone : Fragment of a dice showing numbers in the form of circles. From Period IV (PNI. 1 : 637).

19. Bone : Fragment of a pendant. From Period IV (PNI. 1 : 697).

20. Bone : Pendant, upper segment notched to form groove all around, plano-concave in elevation and square cross-section. From Period III (PNI. 1 : 827).

21. Bone : Fragment of a handle, exterior divided into four unequal divisions by incised parallel lines, burnt black. From Period IV (PNI. 2 : 979).

22. Bone : Tanged arrowhead, triangular in section. From Period I (PNI. 2 : 947).

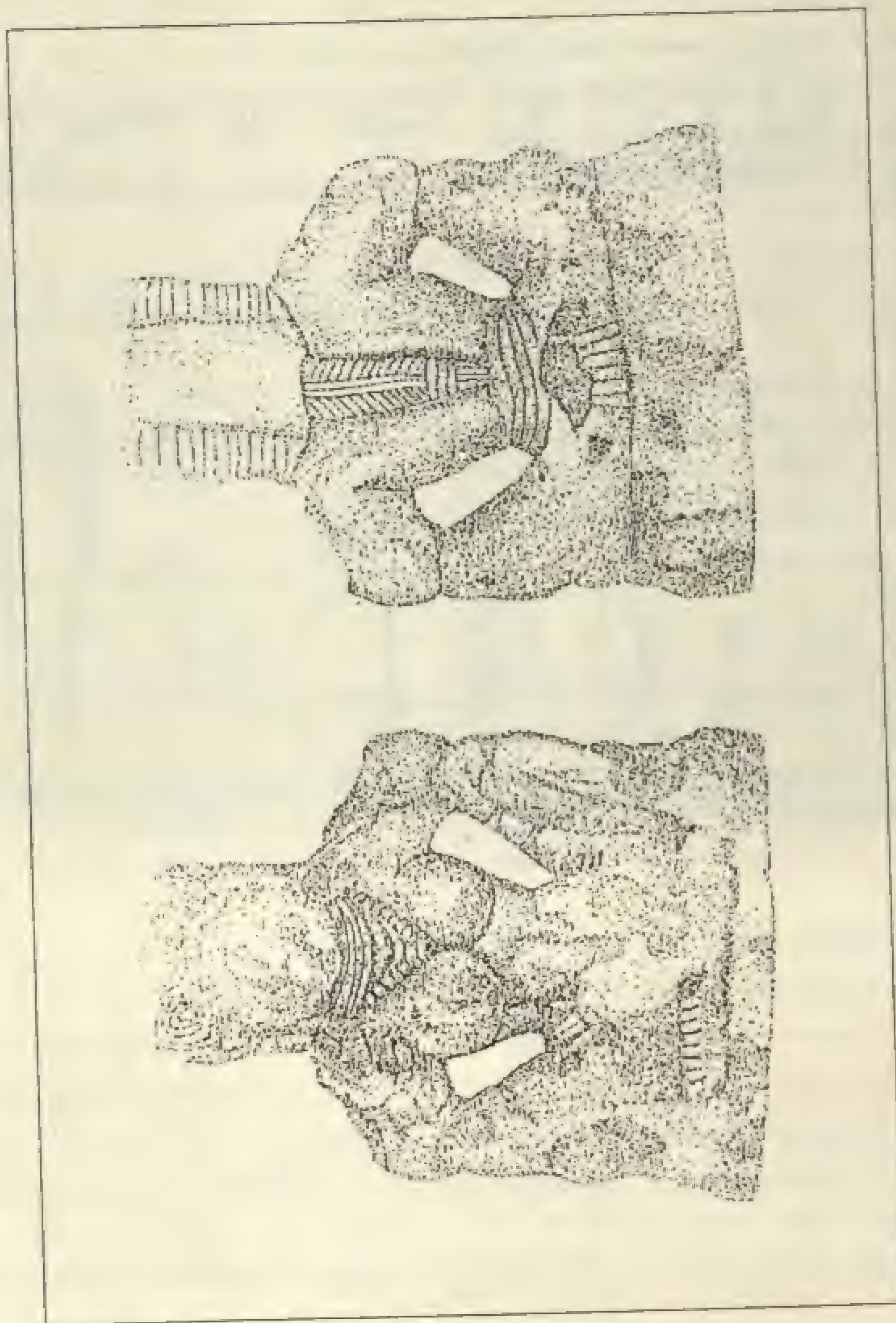


Fig. 35 : *Stone Lajja Gauri*

23. Ivory : Shouldered arrow head, tip broken. From Period IV (PNI. 1 : 331).

24. Bone : Fragment of a pendant, upper portion notched, lower portion missing. From Period IV (PNI. 1 : 084).

25. Bone : Stylus or knitting needle with tapering ends. From Period IV (PNI. 1 : 603).

26. Bone : Stylus or engraver. From Period IV (PNI. 1 : 230).

27. Bone : Needle, tip of either side broken. From Period II (PNI. 2 : 790).

28. Bone : Engraver or needle, lower portion broken. From Period II (PNI. 1 : 501).

29. Bone : Fragment of a stylus or kohl-stick. From Period IV (PNI. 1 : 309).

30. Bone : Knitting needle, lower portion broken. From Period II (PNI. 1 : 508).

31. Ivory : Fragment of a bangle, oblong in section. From Period III (PNI. 1 : 773).

G. STONE OBJECTS

(i) *Sculptural Art Objects*

All the six specimens described here are surface collections, out of which an image of Lajja Gauri (PNI. 1 : 170) and a votive plaque (PNI. 1 : 177) have come from the field of PNI. 2 area belonging to Shri Ram Bhao.

1. A soap stone image of Lajja Gauri (13.5 × 10.1 cm) characteristically retains the head and her female organ is covered with a loin cloth (pl. XXIX A; fig. 35). In her portrayal of *uttānapāda* and *uttānahasta* postures the deity holds a lotus in her each hand which is only partially visible. The figure, carved in round, squatting with her legs apart and hands placed on the corresponding knees is largely mutilated. Her face is defaced but her hair-do is elaborately rendered in the form of two side-buns and a crest in the centre while the semi-circular thread deep incision on them create the effect of combed hair. An interesting feature can be noted at the back of the head where the hair of the side- buns has unusual horizontal incisions at regular intervals, while the hair of the crest shows a lattice like decoration. Apart from *ekāvalī*, ornaments such as *karṇa – kuṇḍalas* and *nupuras* are also worn. Though the waist is gracefully attenuated, the over all treatment is pronounced and bold with a certain amount of rigidness. Still, an impression of austerity be seen in her delineation. On stylistic consideration the sculpture may tentatively be assigned to the early Vakataka age (PNI.1:170).

2. A unique plaque depicting an *uttānapāda* Lajja Gauri with her female organ and her head is replaced with a casket like object, upper surface mutilated. She is bedecked with a *mekhalā* and *nupuras* (pl. XXIX B). To her right is shown a squatting *nandi* and on her left side of the private organ is seen a female devotee seated in squatting position and virtually projecting her breasts with her hands. The lower and right portions of the rectangular plaque possess bordered bands. It may be attributed to the Vakataka Period (PNI. 1 : 980).

3. A square votive plaque (9.7X9.7 cm) of soap stone with a mutilated corner depicts four square compartments each bearing an auspicious sign (pl. XXX). In the upper squares from left to right are seen *Śrivatsa* and *Jhvaja-stambha* (flag post) while in lower a *tala* (tank) and a pair of *mina* (fish).

4. Head fragment of crowned Ganesha with a halo behind in trap stone (3 × 2-5 cm). The crown is in tiers, converging into a cone while the eyes are bulging furiously. Teeth are completely attached to the mass while the drooping trunk is mutilated. It may be attributed to the medieval period (pl. XXXI A).

5. A figure of cow (pl. XXXI B) sculptured in round is seen gracefully looking to right. Legs are shown in low relief as if in couchant position; udder has also been shown in proportionate relief (PNI.1:996).

6. A unique object (pl. XXV) depicting a corpulent *yaksha* seated on a *garuḍa*-like bird with a couple of perforation intersecting on either ends and converging into one which ultimately runs across the body. A portion of a side is chipped off. It might have been used as a handle for some mechanical device. It may be attributed to the Satavahana era (PNI.1:558).

(ii) *Miscellaneous Stone Objects* (pl. XXXII)

The excavation has yielded not many but a variety of miscellaneous stone objects which include querns, mullers, ring stone and bead polisher,[1] all belonging to Period IV.

Among the querns three broad varieties have been noticed viz. (a) plain legged quern, (b) decorated legged quern and (c) flat based saddle-type quern. Among the muller of circular cross-section and (b) mullers only two varieties were noticed vig. (9) mullers of square cross-section.

A few illustrated specimens are described below:

1. Decorated four legged quern (30 × 15 × 13.3 cm) of fine grained sand stone, on plan it appears like a fish. Apsidal end of the upper surface projected beyond the axis of legs, while its upper surface bear typical Mauryan polish type of shine, obtained due to constant rubbing and polishing of semi-precious stone bead. By the side of the apse there is a crescent-like decoration (PNI. 1 : 986).

2. Decorated, sand stone, four legged quern, (11·5 × 16 × 7 cm) half portion and two legs of remaining portion are mutilated. It also bears traces of Mauryan Polish. On plan it is oblong and its upper surface type shown no sign of projection beyond the axis of legs. The surface bears series of improvised V-shaped indentation mark (PNI. 1 : 990).

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[1]These objects in most of the reports occur under the heading of 'Stone Objects'. However, K.D. Banerjee prefers to call such objects as stone 'utensils'. To him the word 'utensil', atleast by popular usage, suggests the use as of domestic in nature as different from weapons or even tools. Cf. "Querns and anvils from the Narbada Valley" *Bulletin of the Deccan College Research Institute*, 18, 1957, p.8, f.n.1

3. Four legged sand stone quern (37 × 19·5 × 19·5 cm). One end of the upper surface protrudes beyond the axis of legs, while its upper surface shows a saddle-like end-to-end depression (PNI. 1 : 989).

4. Decorated four legged sand stone quern, (14 × 11 × 9 cm) half portion broken. The upper surface bears typical Mauryan type polish as noted in case of the above two specimens. On plan it is oblong and towards the decorated end there is no projection of the upper surface beyond the axis of legs. It bears a panel of decoration. It is unfinished where lines have not been delineated properly yet the devices over it are clear. It seems that the artist wanted to decorate the centre of the panel with a radiating *swastika* but bungled the motif. However either ends show horizontally placed *nandipada* facing each other (PNI. 1 : 988).

5. Decorated four legged quern (27 × 12 × 11.2 cm)of fine grained sand stone. The upper surface bears typical Mauryan type polish as noted in case of above specimen. On plan it is oblong and there is no projection of the upper surface on either of the side beyond the axis of the legs. It bears a panel of decoration towards the shorter axis in low relief. In the middle is a radiating *swastika* flanked on either side by two horizontally and one vertically placed *nandipadas.* The two legs of this side are broken (PNI. 1 : 987).

6. Muller of circular section (Length 20.5 cm, Dia. 6 cm), sand stone, cylindrical with bulging ends, however, the entire upper surface shows concave curvature. (PNI. 1 : 993).

7. Muller of circular section (Length 25.5 cm, Dia. 7.5 cm), fine grained sand stone, cylindrical with bulging ends and near plano-convexed section (PNI. 1 : 992).

8. Bead polisher, of bell-shaped sand stone (27 × 18 × 15 cm), used for lapidary work. Out of five faces bearing use-mark, four bear grooves of various lengths while fifth shallow surface showing feeble traces of the Mauryan type polish (PNI. 1 : 995).

9. Ring stone, half broken (PNI. 2 : 371).

CHAPTER VII

COINS

But for Period I and V all other horizons have yielded numismatic evidences. It includes silver and copper punch-marked coins, silver and lead portrait coins, copper cast and die-struck coins and *masa* coins. A classified description of these coin is given below, however, only the better preserved ones are illustrated here.

A. PUNCH-MARKED NON-PROVINCIAL TYPE (pl. XXXIII)

1. Obv. Sun, tree in railing, tank divided into four parts each containing *nandipada* oriented in cardinal directions, caduceus and six armed symbol.

   Rev. Triangle headed standard, other signs not clear.

   Size : Dia. max. 15 mm ×min. 13 mm; Thickness 2 mm; Weight : 2·95 grm; Shape : Oval; Metal: Silver; Condition: Fairly good. From Period II (PNI. 1 : 271).

2. Obv. Three arched hill with crescent top, sun, bull to left and six armed symbol.

   Rev. Not clear.

   Size: Dia. 14 mm; Thickness 2 mm; Weight : 3.10 gm.; Shape: circular; Metal: Silver; Condition: uncleaned, fair. From Period IV (PNI. 1 : 546).

3. Obv. Sun, six armed symbol, elephant to right, other signs not clear.

   Rev. Three arched hill, other signs not clear.

   Size: 13× 13 × 2·5 mm; Weight 2·96 gm.; Shape: Square; Metal: Silver coated copper base; Condition: Uncleaned, fairly good. From Period IV (PNI. 1 : 069).

4. Obv. Three arched hill with crescent on top, sun, tree and six armed symbol.

   Rev. Dumb-bell and elephant (?) to right.

   Size: 14 × 10 × 3 mm; Weight: 3·15 gm.; Shape: Oblong; Metal: Silver; Condition: Worn, obv. device not clear, copper incrustation. From Period IV (PNI. 1 : 569).

5. Obv. Six armed symbol, three arched hill with crescent top, elephant and bull to right.

   Rev. Sign within the circular incuse showing an animal to left, possibly standing in front of a tree.

   Size: 14 × 13 × 2 mm; Weight: 2·98 gm.: Shape: Oblong; Metal: Silver; Condition: Worn, copper incrustation on the obv. From Period IV (PNI. 2 : 668).

6. Obv. Sun, six armed symbol, other signs not clear.

   Rev. Tree, other signs not clear.

   Size : 13 × 12 × 2·5 mm Weight: 3·10 gm.; Shape : Oblong; Metal: Silver coated copper base Condition: worn out. From Period IV (PNI. 1 : 480).

7. Obv. Three arched hill with crescent on top, bull to left, caduceus and six armed symbol.

   Rev. Sun.

   Size : 14 × 10 × 3 mm; Weight : 3·25 gm; Shape: Oblong; Metal: Silver; Condition: Worn, copper incrustation on the obv. From Period III (PNI. 1 : 691).

B. PUNCH-MARKED PROVINCIAL TYPE (pl. XXXIV)

A particular type of coin has largely been found in the Wardha-Wainganga Valley of Vidharbha and it out numbers other varieties of punch-marked coins reported from this region. It invariably consists of five symbols on the obverse viz. (1) tree in railing, (2) sun, (3) six armed symbol, (4) triangle headed standard and (5) radiating *swastika* and *nandipada* within an oblong frame or tank, while the reverse consisted of triskeles and dumb-bell.

The four representative specimens, two each of silver and copper are described below:

1. Obv. Tree in railing, three pellets between group of leaves, sun, six armed symbol (*Sadara cakra*), Triangle headed standard and radiating *swastika* and *nandipada*.

   Rev. Triskeles and dumb-bell.

   Size: 15 × 14 × 2 mm; Weight: 2·14 gm.; Shape: Oblong; Metal: Copper; Condition: Fairly poor. Surface collection (PNI. 1 : 176).

2. Obv. Same as no. 1.

   Rev. Same as no.1.

   Size : 22 × 11 × 2 mm; Weight: 3·05 gm.; Shape: Oblong; Metal: Copper; Condition: Uncleaned but fairly good. From Period IV (PNI. 1 : 394).

3. Obv. Same as no.1.

   Rev. Same as no. 1.

   Size : 16 × 13 × 2 mm; Weight : 2·89 gm.; Shape: Oblong; Metal: Silver; Condition: Fair having copper incrustation on either side of the coin. From Period IV (PNI. 1 : 436).

4. Obv. Same as no. 1.

   Rev. Same as no.1.

   Size : 16 × 14 × 2 mm; Weight: 2·90 gm.; Shape: Oblong; Metal: Silver; Condition: Fairly good. From Period II (PNI. 2 : 835).

C. PUNCH-MARKED INSCRIBED COINS (pl. XXXV)

Among the category of inscribed punch-marked coins, the site of Wardha-Wainganga Valley has reported a good number of Bhadra coins attributed to Damabhadra and Satyabhadra. Apart from the known Bhadra issues, the present excavation has brought out an entirely new variety. It includes a Datta and Bhadra coins.

(i) *Datta coin*

1. Obv. Four *nandipadas*, arranged back to back and each projected in a cardinal direction, sun and trees, between the two leaves appear a pellet. Legend in the centre, forming an oblique line, without any honorific or case ending of four Brahmi characters, reads *Ayadata*.

   Rev. Sign within a circular incuse covered under incrustation.

   Size : 20 × 17 × 2·5 mm; Weight: 6·00 gm.; Shape: Oblong; Metal: Copper; Condition: Uncleaned, fairly good. From Period IV (PNI. 2628).

(ii) *Bhadra Coin*

2. Obv. Bull to right, Ujjain symbol, tree and S-like river sign each segment having fish motif. Legend in the lower half consisting of four early Brahmi characters arranged in a line, without an honorific but with case ending. It reads *Badasa* i.e. the coin of Bhadra. This coin may be of the first ruler of Bhadra dynasty.

   Rev. Ujjain symbol, faded.

   Size : 15 × 13 × 3 mm; Weight: 2·38 gm.; Shape: Oblong; Metal: Copper; Condition: Obv. fair while rev. worn. From Period IV (PNI. 1 : 562).

D. MASA COINS (pl. XXXVI)

The excavation has yieled eighteen *masa* coins. Conspicuously, majority have been encountered from layer (2) from a depth ranging anywhere between 30 to 20 cm. However two have been found at a depth of 45 cm. in the cuttings of rampart (PNI. 2), while one has come from the foundation pit of a ring well of D1/1, sealed by layer (1).

The selected specimens are described below:

1. Obv. Tree in railing.

   Rev. Bull to right.

   Size : Dia. 11 mm; Thickness 4 mm; Weight: 1·99 gm.; Shape: Circular; Metal: Copper; Condition: Worn; From Period IV (PNI. 2 : 670).

2. Obv. Tree in railing.

   Rev. Ujjain symbol.

Size: Dia. 11 mm; Thickness 4 mm; Weight: 2·17 gm.; Shape: Circular; Metal: Copper; Condition: Highly corroded, but the design on either side is in bold relief; From Period IV (PNI. 1 : 378).

3. Obv. Tree in railing.

Rev. Ujjain symbol.

Size: Dia. 6 mm; Thickness 2 mm; Weight: 0·46 gm.; Shape: Circular; Metal: Copper; Condition Worn; From Period IV (PNI. 1 : 864).

4. Obv. Tree in railing.

Rev. Ujjain symbol.

Size: Dia. 8 mm; Thickness 4 mm; Weight 0·59 gm.; Shape: Circular; Metal: Copper; Condition: Worn; From Period IV (PNI. 1 : 514).

5. Obv. Tree in railing.

Rev. Ujjain symbol.

Size: Dia. 6 mm; Thickness 2 mm; Weight: 0·51 gm.; Shape: Circular: Metal; Copper; Condition: Worn; From Period IV (PNI. 1 : 047).

6. Obv. Elephant to right.

Rev. Ujjain symbol.

Size: Dia. 9 mm; Thickness 3 mm; Weight: 1·10 gm.; Shape: Circular; Metal: Copper; Condition: Worn and corroded; From Period IV (PNI. 1 : 256).

7. Obv. Tree in railing.

Rev. Ujjain symbol.

Size: Dia. 7 mm; Thickness 2 mm; Weight: 0·45 gm.; Shape: Circular; Metal: Copper; Condition: Worn; From Period IV (PNI. 2 : 843).

8. Obv. Bull to right.

Rev. Ujjain symbol

Size: Dia. 7 mm; Thickness 3 mm; Weight: 0·66 gm.; Shape: Circular; Metal: Copper; Condition: Fair; From Period IV (PNI. 1454).

9. Obv. Tree in railing.

Rev. Ujjain symbol.

Size: Dia. 7 mm; Thickness 3 mm; Weight: 0·55 gm.; Shape: Circular; Metal: Copper; Condition: Worn; From Period IV (PNI. 1 : 162).

10. Obv. Tree in railing.

Rev. Ujjain symbol.

Size: Dia. 6 mm; Thickness 2 mm; Weight: 0·13 gm.; Shape: Circular; Metal: Copper; Condition: Worn, symbol faded; Period IV (PNI. 1 : 344).

11. Obv. Elephant to right.

Rev. Ujjain symbol.

Size: Dia. 8 mm; Thickness 3 mm; Weight: 0·98 gm.; Shape: Circular; Metal: Copper; Condition: corroded and worn; From Period IV (PNI. 1 : 147).

12. Obv. *Nandipada*.

Rev. Ujjain symbol.

Size: Dia. 7 mm; Thickness 2 mm; Weight: 0·49 gm.; Shape: Circular; Metal: Copper; Condition: Corroded and worn; From Period IV (PNI. 1 : 207).

E. CAST COPPER COINS (pls. XXXVII-XXXVIII)

(i) *Taxila Type*

Taxila type of cast copper coins reported earlier from Adam, have been studied. In the sequel, the present excavation at Pauni has produced a good number of varieties. Some of the best represented are illustrated here.

1. Obv. Elephant to left.

Rev. Three arched hill with crescent on top.

Size: Dia. 14 mm; Thickness 1.5 mm; Weight: 1.41 gm.; Shape: Circular; Metal: Copper; Condition: good; From Period IV (PNI. 1 : 877).

2. Obv. Elephant to left.

Rev. Three arched hill with crescent on top.

Size: Dia. 14 mm; Thickness 3 mm; Weight: 3.41 gm.; Shape: Circular; Metal: Copper; Condition: Uncleaned, fair; From Period IV (PNI. 1 : 03).

3. Obv. Elephant to left.

Rev. Three arched hill.

Size: Dia. 12 mm; Thickness 1 mm; Weight: 0·54 gm.; Shape: Circular; Metal: Copper; Condition: Fair; From Period IV (PNI. 1 : 708).

4. Obv. An unusual depiction of an elephant with radiating swastika at back.

Rev. Tree in railing, on its right corner *nandipada* followed by Ujjain symbol.

Size: Dia. 13 mm; Thickness 4 mm; Weight: 2·86 gm; Shape: Circular; Metal: Copper; Condition: Worn and faded; From Period IV (PNI. 1 : 099).

5. Obv. Elephant to left.

   Rev. Three arched hill with a crescent on top.

   Size: Dia. 14 mm; Thickness 3 mm; Weight: 2·28 gm.; Shape: Circular; Metal: Copper; Condition: Fair; From Period IV (PNI. 1 : 856).

6. Obv. Elephant to left.

   Rev. Three arched hill of bow and arrow shaped, railing portion of the tree, upside down.

   Size: Dia. 13 mm; Thickness 2 mm; Weight: 0·77 gm.; Shape: Circular; Metal: Copper; Condition: Worn; Period IV (PNI. 2 : 767).

7. Obv. Elephant to left.

   Rev. Three arched hill with a crescent on top.

   Size: Dia. 13 mm; Thickness 1·5 mm; Weight: 1·45 gm.; Shape: Circular; Metal: Copper; Condition: Fair; From Period IV (PNI.1:227).

8. Obv. Arrow headed standard within a railing each corner of the railing shows parasol and on its side *nandipada*, above it on either side elephants facing each other with raised trunks.

   Rev. Tree in railing.

   Size: Dia. 11 mm; Thickness 2 mm; Weight: 1.20 gm.; Shape: Circular; Metal: Copper; Condition: Fair, rev. rubbed. From Period IV (PNI. 1 : 812).

9. Obv. Elephant to left.

   Rev. Three arched hill.

   Size. Dia. 12 mm; Thickness 3 mm; Weight: 1.74 gm.; Shape: Circular; Metal: Copper; Condition: Fair; From Period IV (PNI. 1 : 895).

10. Obv. Elephant to left.

    Rev. Three arched hill with crescent on top.

    Size: Dia. 12 mm; Thickness 2 mm; Weight: 0·73 gm.; Shape: Circular; Metal: Copper; Conditon: Worn and corroded; From Period IV (PNI. 1 : 499).

11. Obv. Elephant to left, faded.

    Rev. Three arched hill with crescent on top and tree in railing upside down.

    Size: Dia. 16 mm; Thickness 2 mm; Weight: 2.13 gm.; Shape: Circular; Metal: Copper; Condition: Fair, rev. worn; From Period IV (PNI. 1 : 720).

12. Obv. Elephant to left, fairly rubbed off.

    Rev. Tree in railing upside down.

Size: Dia. 17 mm; Thickness 2 mm; Weight: 3·51 gm.; Shape : Circular; Metal: Copper; Condition: fair, rev. rubbed off; Surface collection (PNI. 1 : 20).

13. Obv. Elephant to left, faded.

Rev. Three arched hill with crescent top and tree in railing upside down.

Size: Dia. 14 mm; Thickness 2 mm; Weight: 1.43 gm.; Shape: Circular; Metal: Copper; Condition: fair and worn; From Period IV (PNI. 1 : 882).

14. Obv. Elephant to left.

Rev. Three arched hill with a crescent on top.

Size: Dia. 11 mm; Thickness 3 mm; Weight: 1.55 gm.; Shape: Circular; Metal: Copper; Condition: Uncleaned, mutilated but fair; From Period IV (PNI.1:183).

(ii) *Kauśāmbi Type*

So far no excavated site of Vidarbha region has ever reported this type of coin. One specimen has come to light from the habitation area.

15. Obv. Three arched hill with a crescent on top within a circular frame further enclosed by an oblong frame.

Rev. Hollow cross within a circular frame further enclosed by an oblong frame.

Size: 24 × 20 × 3 mm; Weight: 7·66 gm.; Shape: Oblong; Metal: Copper; Condition: Fair; From Period IV (PNI. 1 : 889).

F. INSCRIBED DIE-STRUCK COINS

Among the inscribed die-struck coins mention may be made of Bhadra, Satavahana and Kshatrapa issues.

(i) *Bhadra Coins* (pl. XXXIX)

Among Bhadra coins one each of Dama and Sarva and three of Satya were recognised.

1. Obv. An Early Brahmi legend arranged diagonally, reads: *rañoSavabha (dasa)*, other signs worn and pitted.

Rev. Bold three arched hill, left portion out of flan, on its right a *nandipada*, rest of the symbols are not clear.

Size: 18 × 18 × 3 mm; Weight: 4.66 gm.; Shape : Square; Metal: Copper; Condition: Highly corroded and pitted; From Period IV (PNI. 1 : 420).

2. Obv. Bull to right, Out of flan and three arched hill, other devices not clear. Legend feeble reads: (*rano*) *Sachabhadasa*.

Rev. Not clear.

Size: 15 × 13 × 2 mm; Weight: 2·52 gm; Shape: Oblong; Metal: Copper; Condition: Worn; From Period IV (PNI. 2 : 791).

3. Obv. Other than Ujjain symbol, rest in the upper segment faded, while the lower segment show S-like river sign with usual fish motif. Early Brahmi legend occurs in the centre, reads: *Dāmabhada*.

Rev. Ujjain sign faded.

Size: 15 × 14 × 3 mm; Weight: 3·63 gm.; Shape: Oblong; Metal: Copper; Condition: Worn; From Period IV (PNI. 1 : 434).

4. Obv. Tree in railing, three arched hill with crescent on top, other details covered under thick incrustation. Early Brahmi legend arranged diagonally across the coin flan reads: *rano Sachabhadasa* (i.e. the coin of king Satyabhadra).

Rev. Ujjain symbol having double concentric circles with pellet, between the projections *nandipada* sign is seen.

Size: 17 × 16 × 2 mm; Weight: 2·44 gm.; Shape: Oblong; Metal: Copper; Condition: obv. fairly well preserved, rev. slightly worn out; From Period IV (PNI. 1 : 445).

5. Obv. Tree in railing seen above the legend rest obliterated, legend reads: *Sachabh (dasa).*

Rev. Ujjain symbol, other signs obliterated.

Size: 17 × 14 × 3 mm; Weight: 2·87 gm.; Shape: Oblong; Metal: Copper; Condition: Poor and mutilated; From Period IV (PNI. 2 : 863).

(ii) *Satavahana Coins* (Pl. XL)

A number of Satavahana copper coins have been encountered out of which a few have been attributed to Satakarni I and some to later Satavahana rulers. Some of the Satakarni I coins appears to have been restruck, which needs cross examination.

Selected specimens are described below.

1. Obv. Ujjain symbol. Legend in upper flan in single line reads: *rano siri sāta* (kanisa). Ujjain symbol, one of the projection has *nandipada.*

Rev. Tree in railing.

Size: 24 × 21 × 2 mm; Weight: 6.97 gm.; Shape: Oblong; Metal: Copper; Condition: counterstruck end portion of the legend out of flan, otherwise fair, rest of the signs damaged in the process of counterstricking; From Period IV (PNI. 2 : 677).

2. Obv. Elephant to right, trunk raised, signs on its back not clear.

Rev. Wheel, partially out of flan.

Size: 10 × 9 × 2 mm; Weight: 1·37 grm.; Shape: Oblong; Metal: Copper; Condition: Good; From Period IV (PNI. 1 : 811).

3. Obv. Elephant to right. Legend: *(ra)no siri......*

   Rev. Ujjain symbol.

   Size: Dia. 20 mm; Thickness 2 mm; Weight: 2·72 gm.; Shape: Circular; Metal: copper; Condition: worn and pitted; From Period IV (PNI. 1 : 264). *Remarks:* Such type of coins were reported from Chanda and Tarhala hoards attributed to the later Satavahan rulers.

G. UNINSCRIBED DIE-STRUCK COINS

Of all the coin types, the uninscribed die-struck copper coins out number. Majority of these are known Satavahana types. Apart from these some may turn out to be altogether new varieties. Selected ones are described below:

1. Obv. Elephant to right.

   Rev. Circle with a pellet in the centre, on its circumference arrow head and *nandipada* figure, alternately a variant of six armed symbol.

   Size: Dia. 10 mm; Thickness 3 mm; Weight: 1·56 gm.; Shape: Circular; Metal: Copper; Condition: Worn; From Period IV (PNI. 1 : 640).

2. Obv. Tree in railing, flanked by *swastika* and *nandipada.*

   Rev. Six armed symbol, as above.

   Size : 14 × 11 × 2 mm; Weight: 1·74 gm.; Shape: Oblong; Metal: Copper; Condition: Worn and faded; From Period IV (PNI. 1 : 96).

3. Obv. Tree in railing.

   Rev. Six armed symbol as in case of sl. no.1 above.

   Size: 13 × 11 × 2 mm; Weight: 1·67 gm.; Shape: Oblong; Metal: Copper; Condition: Worn and faded; From Period IV (PNI. 1 : 21).

4. Obv. *nandipada* of thick variety.

   Rev. Six armed symbol as in case of sl. no. 1 above.

   Size: 9 × 8 × 2 mm; Weight: 0·77 gm.; Shape: Oblong; Metal: Copper; Conditon: Worn; From Period IV (PNI. 1 : 145).

5. Obv. *nandipada* of thick variety, to its left another similar sign but out of flan.

   Rev. Six armed symbol as in case of sl. no. 1 above.

   Size: 11 × 10 × 2 mm; Weight 1·08 gm.; Shape: Oblong; Metal: Copper; Condition: Worn; From Period IV (PNI. 2 : 663).

6. Obv. *nandipada* of thick variety.

   Rev. Not clear, may be similar to the one noted above.

   Size: 12 × 9 × 2·5 mm; Weight 1·28 gm.; Shape: Oblong; Metal: Copper; Condition: Worn; From Period IV (PNI. 2 : 664).

7. Obv. *nandipada* of thick variety.

 Rev. Six armed symbol, faded.

 Size: 12 × 9 ×3 mm; Weight: 1·49 gm.; Shape: Oblong; Metal: Copper; Conditon: Worn; From Period IV (PNI. 1 : 355).

8. Obv. A bold depiction of an elephant to right.

 Rev. An elephant to left in the upper flan, tree in railing and ujjain symbol.

 Size: 15 × 11 × 1 mm; Weight: 0.52 gm.; Shape: Oblong: Metal: Copper; Condition: Poor and mutilated; From Period V (PNI.\2 : 960).

9. Obv. Tree in railing.

 Rev. Ujjain symbol in upper flan each circle of the dumb bear *nandipada*, an elephant to right in lower flan, on its back a radiating *swastika* visible, however *nandipada* on the other side feeble.

 Size: 15 × 13 × 2 mm; Weight: 2·32 gm; Shape: Oblong; Metal: Copper; Condition: Fair; From Period IV (PNI. 1 : 393)[1].

10. Obv. Tree in railing.

 Rev. Ujjain symbol, each circle of the dumb bear *nandipada*.

 Size: 16 × 11 × 4 mm; Weight: 4·72 gm: Shape: Oblong; Metal: Copper; Conditon: Worn; Surface collection (PNI. 1 : 578).

11. Obv. Elephant to left.

 Rev. Tree in railing, faded.

 Size: 10 × 8 × 1.5 mm; Weight: 0.83 gm.; Shape: Oblong; Metal: Copper; Condition: Worn; From Period IV (PNI. 1 : 203).

12. Obv. Elephant to right.

 Rev. Six armed symbol and tree in railing.

 Size: 12 × 12 × 2 mm; Weight: 1.50 gm.; Shape: Square; Metal: Copper; Condition: Worn; From Period IV (PNI. 1 : 866).

13. Obv. Elephant to right.

 Rev. Ujjain symbol.

 Size: 17 × 17 × 3 mm; Weight: 5.21 gm.; Shape: Square; Metal: Copper; Condition: Worn; From surface collection (PNI. 1 : 1).

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[1] May be attributed to the Satakarni I.

14. Obv. Tree in railing.

    Rev. Ujjain symbol.

    Size: 11 × 11 × 1 mm; Weight: 0.90 gm.; Shape: Square; Metal: Copper; Condition: Worn; From Period IV (PNI. 1 : 243).

15. Obv. Tree in railing.

    Rev. Ujjain symbol.

    Size: 10 × 9 × 1 mm; Weight 0.61 gm.; Shape: Oblong; Metal: Lead; Condition: Worn; From Period IV (PNI. 1 : 146).

H. PORTRAIT COINS

Among the portrait coins the excavation has yielded two silver Kshatrap portrait coins and two lead portrait coins, out of which one is doubtful. The former type is known from the earlier excavations at the site.[1] Their coin moulds have been reported from a few Upper Maharashtra sites like Bhokardan[2] and Arambha.[3] Out of the two one is attributed to Vishvasimha son of Rudrasena II (A.D. 275-282).[4] However the latter type is discovered in good number at Adam.[5]

(i) *Kshatrapa Portrait Coins* (pl.XLI)

1. Obv. Vitiated bust of the king to right.

   Rev. Three arched hill with crescent on the top, beneath a river, crescent like sun on left and a group of pellets forming circle. Brahmi legend reads: (*Rano mahākhatrapasa Rudrasenaputrasa Raño*) *khatrapasa Visva sihasa*[6].

   Size: Dia. 13 mm; Thickness 2 mm; Weight: 1.68 gm; Shape: Circular; Metal: Silver; Condition: Fair but worn surface; From Period IV (PNI. 1 : 567).

2. Obv. Vitiated bust of the king to right.

   Rev. Three arched hill symbol with crescent on the top and river below. Other signs and legend are feeble, reads- .. .. *mahā Khatrapasa* .. ..

   Size: Dia. 14 mm; thickness 2 mm; Weight: 1.90 gm.; Shape: Circular; Metal: Silver; Condition: Fair but worn surface; From Period IV (PNI. 1079).

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[1] Deo & Joshi, *op.cit.*, pp. 33-34, pl.XLVI-3.

[2] S.B. Deo, & Gupte, R.S. *Excavations at Bhokardan (Bhogavardhana) 1973*, Nagpur: Aurangabad, 1974, pp. 73-74, pl.XXXI-A.

[3] Amarendra Nath, "A Ksatrapa Coin Mould", *JNSI.*, Vol. LIV, pp.60-61.

[4] Amiteshwar Jha and Dilip Rajgor, *Studies in the Coinage of the Western Ksatrapas*, Nasik, 1994, pp. 192-195.

[5] Amarendra Nath, "The first ever reported lead Portrait coins of the Satavahanas", *Nidhi*, Journal of the Indian coin Society, Nagpur, Vol.I, 1990, pp.25-30.

[6] The author is thankful to Prof. B.N. Mukherjee for identification of this coin.

(ii) *Satavahana Portrait Coins*

As against the number of lead portrait coins reported from the Satavahana horizon at Adam, the present site has reported only one; this shows its distribution for the first time at more than one site in the Wainganga Valley.

1. Obv. Portrait of the king to right, encircled by a legend, reads: (*rano*) *sirisataka* (*ni*) (*sa*).

   Rev. Six arched hill and Ujjain symbol.

   Size: Dia. 10 mm; Thickness 1 mm; Weight: 0.98 gm.; Shape: Circular; Metal: Lead; Condition: Worn and pitted, uncleaned; From Period IV (PNI. 1 : 742).

I. BAHMANI AND MARATHA COINS (pl. XLII)

1. *Taju'd Din Firuz Shah* (800-25 A.H./1397-1422 A.D)[1]

Obv. 1. Raji-i-
2. Ridwan-i-
3. Muhaimini
(i.e. Suppliant for paradise
of the Protector (i.e. God)

Rev. 1. Firuz Shah
2. Bahmani
Margin : Duriba ba-Hadrat Ahsanabad
i.e. Firuz Shah Bahmani,
minted at Hadrat[2] (i.e. capital) Ahsanabad(i.e. Gulbarga).

Size: Dia. 17 mm; Thickness: 3 mm; Weight : 4.79 gm.; Shape: Circular; Metal: Copper; Condition: Good; From Period V (PNI. 2 : 662).

2. *Alau'd-Din Ahmad Shah II* (838-62 A.H./1435-57 A.D.)[3]

Obv. 1. Al-Mustansir billah
2. il-Ghani Abul-Muazaffar

(i.e. The suppliant for help
of Allah, the Rich. Abul-Muazaffar

Rev. 1. Ahmad Shah
2. bin Ahmad Shah
3. Al-Bahmani
(i.e. Ahmad Shah son of Ahmad Shah Bahmani)

Size: Dia. 16 mm; Thickness 3 mm; Weight: 5.02 gm.; Shape: Circular; Metal: Copper; Condition: Good; From surface collection (PNI.2:759).

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[1] Md. Abdul Wali Khan-*Bahmani coins in the Andhra Pradesh Government Museum*, Hyderabad (Hyderabad, 1964), p.73, No.105, Pl.XV.

[2] Epithet of Hadrat used before the mint name Ahsanabad indicates that Ahsanabad (i.e. Gulbarga) was the capital-mint-city, *cf. Numismatic Digest*, Vol. 14 (1990), p.45 (f.n.4).

[3] Md. Abdul Wali Khan, *op.cit.*, p.108, No.112, Pl.XXII.

PAUNI 1994 COINS

Layers	PMC	Inscribed PMC : Datta	Inscribed PMC: Bhadra	Satavahana inscribed	Die-struck inscribed	Kshatrapa inscribed	Other inscribed	Portrait	Masa	SYMBOLS				Bahmani	Maratha	Corroded	TOTAL	
										Cast Taxila		Coin Kauśāmbi	Die-struck				No.	Percentage
Surface														3	1		4	2.90
1	3			1	1		2	2	2	2	1		13			5	32	22.38
2	4	1	1	2	6	2	1		18	5	2	1	26			8	77	53.84
3	2			2			1			4	1		9			5	24	16.78
4	2									1							3	2.10
5	2										1						3	2.10
Total	13	1	1	5	7	2	4	2	20	12	5	1	48	3	1	18	143	100

Table showing typological distribution of coins in various layers

PAUNI 1994 COINS

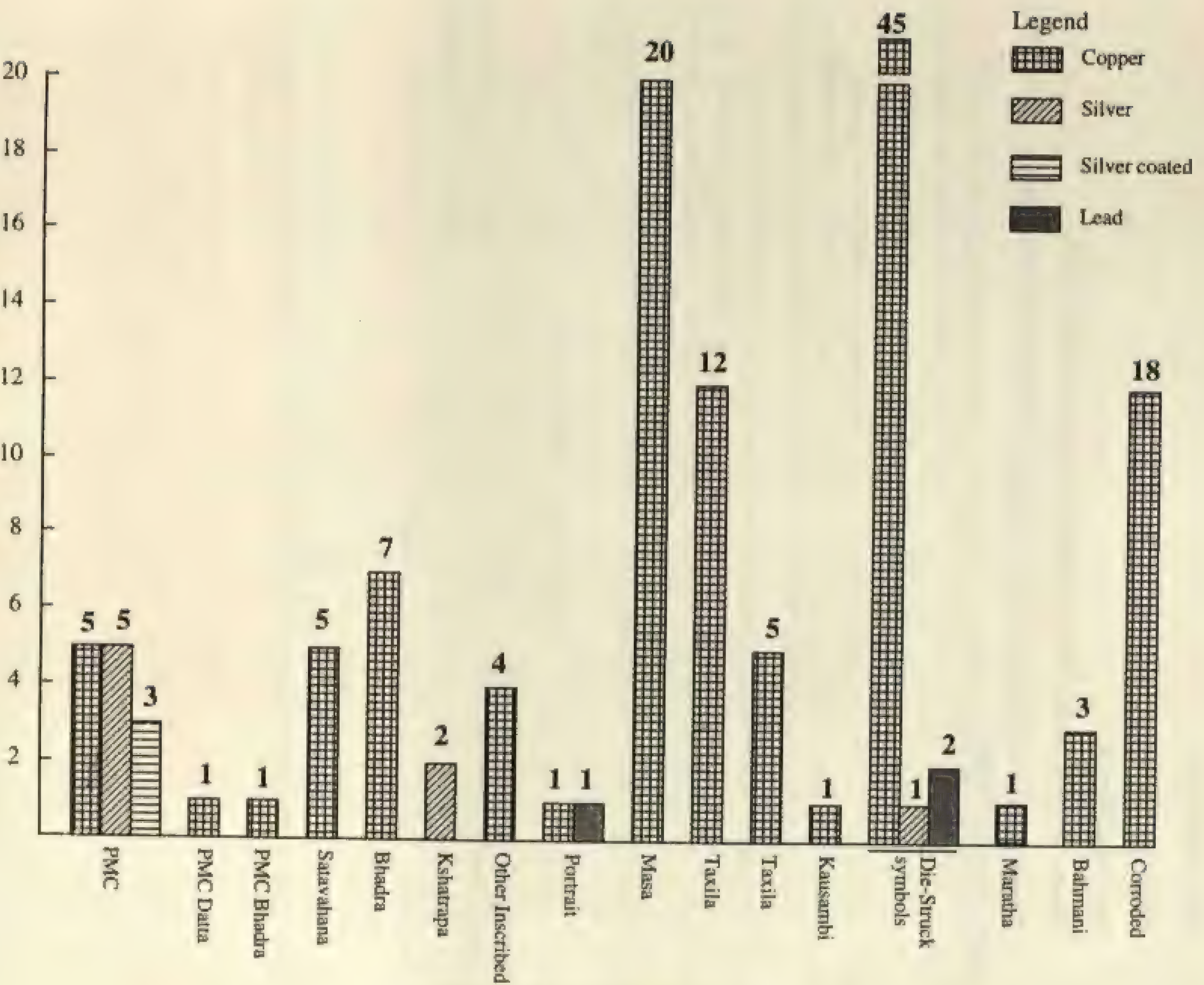
Coin Types / Materials	PMC	Inscribed PMC : Datta	Inscribed PMC: Bhadra	Satavahana inscribed	Die-struck inscribed	Kshatrapa inscribed	Other inscribed	Portrait	Masa	SYMBOLS: Cast Coin – Taxila		Kauśāmbi	SYMBOLS: Die-struck	Bahmani	Maratha	Corroded	TOTAL: No.	TOTAL: Percentage
Copper	5	1	1	5	7		4	1	20	12	5	1	45	3	1	18	129	90.2
Silver	5					2							1				8	5.55
Silver Coated	3																3	2.1
Lead								1					2				3	2.1
Total No.	13	1.	1	5	7	2	4	2	20	12	5	1	48	3	1	18	143	
Percentage	9.09	0.69	0.69	3.50	4.89	1.40	2.80	1.40	13.99	8.39	3.50	0.69	33.57	2.10	0.69	12.59	(–)	100

Table showing typological distribution of coin metal

PAUNI 1994 COINS

Materials / Layers	Surface	1	2	3	4	5	Total
Copper	3	30	71	22	2	1	129
Silver			4	1	1	2	8
Silver coated		1	1	1			3
Lead		2	1				3
Total	3	33	77	24	3	3	143

Table showing layerwise distribution of coins



Bar-chart showing frequency of coin types

3. Obv. Ahmad Shah

   Badshah

   Rev. Julus Nagpur

   Shape : Circular; Metal : Copper; Condition : Good; From Period IV.

Copper paise issued by Parsoj II (1816-17 A.D.) in the name of Mughal emperor Ahmad Shah Bahadur, minted at Nagpur.[1]

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[1] Prashant P. Kulkarni, *Coinage of the Bhonsla Rajas, Nagpur*, (Nagpur, 1990), No. 36. 1, p. 153.

CHAPTER VIII

SEALS

Out of two seals reported from the Satavahana horizons, the uninscribed variety was of ivory and the inscribed was of soap stone.

(a) *Uninscribed seal* (fig. 33 : 2)

A unique seal of ivory has been found in layer (3) of A2/1 (Reg. No. PNI. 1 : 704). It is of tabular shape (Dia. 13 mm; Thickness 3 mm). On its upper surface a deep angular sign of an arrow is seen engraved, however some may prefer to turn it upside down and call it an early Brahmi *ya*.

Arrow as a part of six-armed device on the punch-marked coins and on the Kshatrapa coins is known. Such type of coin device do occur on the seal from the early historical horizons. A seal with this device may indicate a token of identity of the bearer. Exactly similar type of seal-device has not come to light so far but a terracotta sealing from Bhita in the Allahabad museum bears a circular legend *Sulaphalayikanam* in characters of *circa* first century B.C., referring to the makers of arrow heads (*Sulaphala*)[1].

(b) *Inscribed seal* (pl. XLIII A)

A rare seal is reported from layer (2) of C2/1. It is fashioned out of soap stone. But for notched sides and top, it is basically of plano-convexed shape.There is a circular perforation in its centre. It measures 27 × 12 × 22 mm.

The flat surface bears a single line legend in Prakrit consisting of four early Brahmi characters. The characters are arranged in negative order which reads *chuladena* i.e. the seal of 'chuladenna'. In order to know the Sanskrit form of the Prakrit legend *Chuladenna* it is necessary to understand it in stages i.e. *chuladinna* transformed into *chuladatta* (i.e. small gift). Likewise *chula* is taken as *sula* then the complete sanskrit form would be Suladatta i.e. the owner of the seal is born from the grace of trident (wielder) i.e. Lord Siva).

The legend however is without an honorific and case ending.

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[1] K.K. Thapliyal, *Studies in Ancient Indian Seals*, Lucknow, 1972, p. 242.

CHAPTER IX

PLANT REMAINS

In the course of excavations in the habitation area (PNI. 1) eight charred samples of seeds were collected, out of which six were found in good condition, which helped a great deal in identifying the samples. They were basically of *ber* and *amala*. Period III reported both these varieties while Period II and IV only former. Further details on the samples are given below (pl. XLIII B).

Apart from these, there were other evidences in the form of rice husks, grass and other fibrous material reported from various strata; but unfortunately its laboratory analysis was not ready at the time of finalising this report.

Sl No.	*Trench*	*Layer*	*Depth*	*Period*	*Common English Name*	*Botanical Name*
1.	C1/4	3	60 cm	IV	Indian Jujube	Zizyphus Jujuba Lamk.
2.	A2/2	4	95 cm	III	Indian Jujube (2 nos.)	Zizyphus Jujuba Lamk.
3.	A2/2	4	95 cm	III	Emblic Myrobolan (2 nos.)	Phylcanthus Emblica Linn Type.
4.	B2/2	5	125 cm	II	Indian Jujube	Zizyphus Jujuba Lamk.

Table showing Charred Seeds recovered from Pauni Excavations

CHAPTER X

ANIMAL REMAINS

Analysis of bone remains collected from the excavation at Pauni, District Bhandara was carried out in the Department of Anatomy, Nagpur Veterinory College, Nagpur of Punjabrao Krishi Vidapeeth, Akola, Maharashtra. A total number of bones subjected to analysis were 516 out of which 479 (92 per cent) were identifiable while 37 (8 per cent) were unidentifiable. Most of the bones were fragile and fragmentary hence these were identified from the structures of the extremities of long bones of the appendicular skeleton and the processes or cavities of the bones of axial skeleton i.e. skull, mandible and vertebrae. About 4.5 per cent of identifiable bones were charred while about 3 per cent of the bones had cut marks. This suggested human activity at various period of time at the site.

Bones of the following animals were identified.

MAMMALS

Domestic Animals : Bos indicus (cattle), Bubalus babalis (buffalo), Capra hircus (goat), Ovis aries (sheep), Sus domesticus (pig), Comis domestica (dog),

Wild Animals : Axis axis (chital), Cervixs unicolor (sambar) Antilope cervicapra (black buck), Tetracenus quadricomis (four homed antilope), (fox) (?), Tiger (?).

AVES

: Gallus gallus (Foon), Ardeotis nigriceps (Great Indian Bustard).

REPTILES

: Corcodilus palustris (Crocodile), Trionx gangeticus (Fresh water turtle) ... ... (snake).

The details about the bones of different animal groups are shown in Table-1, while the layerwise distribution of identifiable bones of various animal groups is shown separately in Table-2.

Layer	*Domestic*	*Wild*	*Aves/ Birds*	*Aquatic (Turtle)*	*Reptiles (Crocodile & Snakes)*	*Total*
1	22	15	18	1	—	56
2	43	47	45	5	8	148
3	26	50	47	1	5	129
4	32	27	7	—	1	67
5	9	7	10	—	—	26
6	23	10	9	2	—	44
7	4	5	—	—	—	9
Total	159	161	136	9	14	479

Table–1. showing layerwise distribution of bones

The layerwise description of illustrated samples is given as under:

Layer 1 (pl. XLIV)

1. Thoracic Vertebra (Ox).
2. First Phalanx (Calf)
3. IIIrd Phalanx (Calf)
4. Molar tooth (Tiger).
5. Scapula (Tiger)
6. Shield (Turtle)
7. Femur (Bird).

Layer 2 (pl. XLV)

1. *Scalpula* (Ox) charred with deep cut marks.
2. First Phalanx (four horned antelope).

	Skull	Mandible	Teeth	Scapula	Humerus	Radius	Ulna	Carpal	Metacarpal	Tarsal	Metatarsal	I Phalanx	II Phalanx	III Phalanx	Femur	Rib	Vertebra	Nail	Coracoid	Mandible with fans	Shield	Tibia	Total
Cattle, Buffalo, Goat, Sheep, Pig, and dog (domestic variety)	2	5	52	7	5	2	4	1	8	16	5	14	4	3	4	9	9	–	–	–	–	9	159
Tiger	–	–	2	1	1	–	–	–	1	–	–	–	–	–	2	1	–	2	–	–	–	–	10
Chital, Sambar, Black Buck and Four horned antelope	1	4	108	–	1	–	–	–	–	–	–	–	8	–	1	2	4	2	–	–	–	3	134
Fox	1	7	9	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	17
Birds	–	–	–	3	9	3	2	–	–	–	4	–	1	–	44	10	–	1	13	–	–	46	136
Crocodile and Snake	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8	–	–	6	–	–	14
Fresh water Turtle	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6	–	9

Table-2 showing details of identifiable bones

3. Tibia (Bird).
4. Tibia (Bird).
5. Tibia (Bird).
6. Femur (Bird).
7. Mandible with Canine tooth (Leopard).
8. Maxilla with molars (Leopard).
9. Maxilla with molars (Antelope).
10. Shield plate (Turtle).
11. Vertebra (Snake).
12. Mandible with fang (Snake).
13. Mandible with fang (Snake).

Layer 3 (pl. XLVI)

1. Scapula with cut marks (Ox).
2. Radius (Ox).
3. Femur (Ox).
4. Metatarsus (Ox).
5. Metatarsus (Antelope) - distal extremity is chopped.
6. I Phalanx with charred surface (Antelope).
7. III Phalanx with charred surface (Antelope).
8. Nail (Leopard).
9. Mandible (Leopard) with molar tooth.
10. Skull (Antelope).
11. Humerus (Bird).
12. Oxcoxae (Bird).
13. Shield Plate (Turtle).
14. Mandible (Crocodile).
15. Mandible with fang (Snake).
16. Vertebrae (Snake).
17. Vertebrae (Snake).

Layer 4 (pl. XLVII A)

1. Humerus distal extremity (Tiger).
2. Proximal extremity of Metacarpus (Tiger).

3. Nail (Tiger).
4. Rib with cut marks on lateral surface (Tiger).
5. Skeletal bones (Fox) - Scapula, humerus, radius, ulna, femur, tibia, metacarpal, phalanx, tibial and fibular tarsal, mandible.

Layer 5 (pl. XLVII B)

1. Tarsal bone (Buffalo).
2. Ist Phalanx (Buffalo).
3. Femur with chopped distal part (Antelope).
4. Femur with chopped distal part (Antelope).
5. Rib-Antelope.
6. Maxilla with molar tooth (Antelope).

Layer 6 (pl. XLVIII A)

1. Large metacarpal (Bovine).
2. Large metacarpal (Bovine).
3. I Phalanx with cut marks (Bovine).
4. Tibia (Bovine).
5. Tibia tarsal (Bovine).
6. Molar tooth (Tiger).
7. Femur with cut marks (Tiger).
8. Femur with cut marks (Tiger).
9. Nail (Leopard).
10. Nail (Leopard).
11. Shield (Turtle).
12. Shield (Turtle).
13. Shield (Turtle).

Layer 7 (pl. XLVIII B)

1. Tibia with cut marks (Leopard).
2. Incisor (Antelope).
3. Mandible with molar (Leopard).
4. Molar tooth (Leopard).
5. Femur (Bird).
6. Tibia (Bird).

CHAPTER XI

CONCLUSION

The gains of the 1994 excavations at Pauni across the rampart as well as in the habitational area are more than one, in that the digs, a part from confirming the chronology of the site from Mauryan times to Satavahana-Kshatrapa periods, revealed by the excavations of the stupa area in 1969-70 has widened the time span of human occupation. The *terminus a quo* can be traced back to the pre-Mauryan times, i.e., *circa* 6th century B.C. (Period I) and the *terminus ad quem* to the Vakataka age, i.e. *circa* 4th-5th century A.D. (Period V).

The occupants of the pre-Mauryan times (Period I) were basically predial, who exploited the vast arable flood plains of the Wainganga and hunted wild animals, specially leopard and antelope in the surrounding woods. The area of excavation being very much limited and the evidences too meagre, it would be hazardous to speculate on the nature of occupation. Yet it is noteworthy that they brought with them the knowledge of a defence system which in turn determined their urban bias as contrasted with the rural background of the pre-Northern Black Polished ware horizon. Survival of defences in the pre-Mauryan horizon at Adam (Period III A and B) coeval with that of Pauni indicates an interaction between the two sites from the very beginning. This cognizable unity among the sites in the Wardha-Wainganga Valley logically asserts the fact that cultural and natural areas are generally contemporaneous because the culture is basically governed by the environment of the region.[1]

The Mauryan age (Period II) was one of imperial unity and the Wardha-Wainganga valley must have developed an exchange network with outlying regions across the Vindhyas inducing trans-migration of contemporary Buddhists and their institutions through its corridors to other urban centres in the peninsular India. Apparently, the strategic location of Pauni and better resource-management of the transpeninsular trade route led to the establishment of the first Buddhist order in the entire Wardha-Wainganga divide here which dominated the society till the decline of the imperial Satavahanas.

Enlargement of the rampart during the Mauryan period would warrant the postulation of some kind of organised living and affluence as a result of profitable exploition of natural resources in the region. Precious and semiprecious stones were quarried extensively. Perhaps Pauni came to be considered as one of the important Mauryan colonies linking southern urban centres, like Sannati in the Bhima valley and Amaravati in the lower reaches of the Krishna. These urban centres together with Pauni, formed an extra-regional trade network and possibly exchanged raw materials as well as finished products.

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[1]Julian Steward, *Theory of Cultural Change*, University of Illinois Press, Ulbana, 1995, p.53.

The Sunga horizon (Period III) at the site was no doubt short lived; but would be always have the distinction of being the first site south of Narmada yielding typical single-mould terracotta figurines of *mithuna* type, together with degenerated variety of NBP Ware with a red core.

The prosperity of the site was at its apex during the Satavahanas (Period IV). The major cottage industry which flourished at the site was lapidary; the other possible household occupation was smithery — gold, silver, copper and iron, besides spinning and weaving, and of course agriculture and animal husbandry getting primacy for sustenance of any society. It is interesting to note that almost all the contemporary sites in the Wardha-Wainganga valley became affluent under the hegemony of the Satavahanas due to the brisk hinterland and overseas trade rampant during their times. Royal patronage was so immense as to effectively preclude the formation of guilds in this area. Initially, these activities were under the imperial control but with the advent of federal structure during the later Satavahanas, it come to be exercised by the local feudatories who become independent in their respective areas of rule at the decline of the power of the Satavahana suzerainty.

Evidece from Period-V is comparatively meagre in comparision to other historical levels exposed; yet the data obtained are of great archaeological consequences in reconstructing the early history of the Vakatakas in the region. Let alone the domestic well of reused burnt-bricks in the habitation area of the Vakatakas and its public utility, the cyclopean wall, second only to Rajgir,[1] built over the burnt-brick revetment of the pre-existing Satavahana fortification, deserves special mention. Similar to the domestic well, the cyclopean wall typifies the nature of construction of the Gupta-Vakataka times by mixing judiciously the courses of massive semi-dressed rubbles with that of the reused stone architectural members of the preceding period. In fact the reuse of building materials is typical of the Gupta period, as evidenced generally at the site in the Ganga plain. The analogous evidence at Pauni, in Vakataka context, is the first of its kind to be noticed south of the Narmada. There are number of other well known Vakataka sites like Paunar, Nagardhana, Vashim, Ramtek, Mansar, etc. situated in the floodplains of Wardha-Wainganga but none had the fortification contemporaneous with their rule. In the presence of the cyclopean wall it may be observed that the importance of Pauni has enhanced the early history of the Vakatakas.

The superimposition of Vakataka fortification over the Satavahana here in a way confirms the Puranic traditions of succession in that the former succeeded the latter in the region. *Inter alia*, the Puranic traditions also point out that Vindhyashakti (*circa* A.D. 225-275), the founder of the Vakataka dynasty, was only a feudal lord of the Satavahanas, in charge of the Wardha-Wainganga valley region.

To establish the *locus standi* of Vindhyashakti as feudal lord of the later Satavahanas, the excavations at Adam in the proximity of Pauni, have yielded from its upper most horizon, hundreds of inscribed lead and copper coins of Vindhyashakti with appellations *mahasenapati* and *maharathi*, along with the coins of the Satavahanas. It is pertinent to emphasise here that some of the Satavahana

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[1]*Annual Report, Archaeological Survey of India*, 1905-06, pp.88-89; A. Ghosh, *Rajgir*, Archaeological Survey of India, New Delhi, 1987, pp. 34-38.

regional subordinates were empowered to issue coins of their own in their names and Vindhyashakti seems to be one of those privileged feudatories. Under the circumstances it would be quite appropriate to assume that soon after the fall of the imperial Satavahanas, Vindhyashakti quietly and smoothly declared his independence from the Satavahana yoke and possibly shifted his smaller seat of power at Adam to the largest fortified settlement in the central Deccan of the Satavahanas at Pauni and founded the Vakataka principality there. The construction of the majestic cyclopean wall immediately over the pre-existing rampart with burnt-brick revetment at Pauni *ipso facto* confirms Vindhyashakti's political sagacity for the need of a well protected area for the protection of his newly acquired independent status as also for maintaining his suzerainty over the region. The renovated fortification amply justifies his fear of external incursions.

It appears that in the fitness of things Vindhyashakti shifted his seat of government to a new capital which he christened simply '*Purikā*', an appellation going well with grandeur of the cyclopean rampart revealed through excavation. There should be no hesitation in the identification of Pauni with *Purikā*-the fort *par excellence*- as the capital of the Vakatakas.[1] Vindhyashakti's famous successor, Pravarasena II, in all probability, renamed this after him as Pravarapura prefixing his name to the shortened *Purikā*. This gets strengthened by the discovery of a copper plate from the excavations which refers to its issuer as Pravarasena II from Pravarapura.[2] This postulate, when accepted, locates the first Vakataka Capital on the banks of Wainganga, thereby clinching the issue of the location of the Vakatakas to the south of the Vindhyas.

[1]R.C. Majumdar and A.S. Altekar, *The Vakataka-Gupta Age (circa 100-550 A.D.)* Banaras, 1954, p.89.
[2]*I.A.R. 1967-68*, p.55; V.B. Kolte, 'Pauni Grant of Pravarasna II'. *E.I.*, XXXVIII, pt. 2, 1969, pp.53-57.

BIBLIOGRAPHY

V.S. Agrawala, "Terracotta Figurines of Ahichchhatra, District Bareilly, U.P.", *A.I.*, No. 4, New Delhi, 1947, pp. 104-179.

J.F. Balkiston, (ed.) "Exploration at Sirkap", Annual *Report of A.R.A.S.I. 1924-25*, Delhi.

K.D. Banerjee, "Querns and Anvils from the Narbada Valley", *B.D.C.R.I.*, 18, Pune, 1957, pp. 8-16.

Henry Cousens, *Antiquarian Remains in the Central Provinces and Berar*, Calcutta, 1887.

S.B. Deo and M.K. Dhavalikar, *Paunar Excavation (1967)*, Nagpur, 1968.

S.B. Deo and R.S. Gupte, *Excavations at Bhokardan (Bhogavardhana) 1973*, Nagpur : Aurangabad, 1974.

S.B. Deo and J.P. Joshi, *Pauni Excavation (1969-70)*, Nagpur, 1972.

M.G. Dikshit, *Excavations at Kaundinyapur*, Bombay, 1968.

A. Ghosh, "Taxila (Sirkap), 1944-45", *A.I.*, No. 4, New Delhi, 1947, pp. 41-84.

A. Ghosh, *Rajgir*, New Delhi, 1987.

D.H. Gordon, "The Goddess of Gandhara", Taxila (Sirkap), 1944-45, *A.I.*, No. 4, 1947, p. 78, pl. XII.

C.S. Gupta, "Symbols Found on Legged Querns", *Indian Coin Society News Letter*, No. 11, Bombay, 1991

C.S. Gupta, "An Unique Torso of Sun from Pauni", *Sri Ramachandrika*, A.V.N. Murthy & I.K. Sarma, (ed.) Delhi, 1993, pp. 267-272.

H. Hargreaves, *A.R.A.S.I. 1927-28*, Calcutta, 1931.

Indian Archaeology 1957-58 — A Review, New Delhi, 1958.

Indian Archaeology 1958-59 — A Review, New Delhi, 1959.

Indian Archaeology 1967-68 — A Review, New Delhi, 1968.

Indian Archaeology 1968-69 — A Review, New Delhi, 1971.

Indian Archaeology 1969-70 — A Review, New Delhi, 1973.

Indian Archaeology 1988-89 — A Review, New Delhi, 1993.

Indian Archaeology 1989-90 — A Review, New Delhi, 1994.

A.P. Jamkhedkar, "The Garuda-khambas of Pauni", *Archaeological Congress and Seminar Paper*, S.B. Deo (ed.), Nagpur, 1972, pp. 13-20.

Amiteshwar Jha and Dilip Rajgor, *Studies in the Coinage of the Western Ksatrapas*, Nasik, 1994.

Julian Steward, *Theory of Cultural Change*, University of Illinois Press, Ulbana, 1995.

Md. Abdul Wali Khan, *Bahmani Coins in the Andhra Pradesh Government Museum, Hyderabad*, Hyderabad, 1964.

V.B. Kolte, "Pauni Plates of Pravarasena II", *E.I.*, 38, 1969, pp. 53-56.

V.B. Kolte, "Brahmi Inscriptions from Pauni", *E.I.*, 38, 1969, pp. 169-74.

Prashant P. Kulkarni, *Coinage of the Bhonsla Rajas of Nagpur*, Nagpur, Bombay, 1990

B.B. Lal, "Examination of Some Ancient Indian Glass Specimens", *A.I.*, No. 8, New Delhi, 1952, pp. 17-27.

R.C. Majumdar and A.S. Altekar, *The Vakataka-Gupta Age (circa 200-500 A.D.)*, Banaras, 1954.

John Marshall, "Tasila-Sirkap", A.R.A.S.I., 1919-20, Calcutta, 1992, p. 19.

John Marshall, (ed.), A.R.A.S.I., 1926-27, Calcutta, 1930, p. 241.

Pradip Shaligram Meshram, "Life as depicted in the Pauni Sculptures", *Indica, 23*, pp. 39-50.

V.V. Mirashi, "A coin of King Dimabhaga," JNSI., Vol. IV, pp. 9-10.

V.V. Mirashi, "Pauni stone Inscriptions of the Bhāra King Bhagadatta, *E.I.*, 24, pp.11-14.

V.V. Mirashi, "A Pillar Inscription of Mahakshatrapa Rupiamma from Pauni", E.I., 37, 1968, pp 201-203.

V.V. Mirashi, "A Pillar Inscription of Mahakshatrapa Rupiamma from Pauni", *E.I.*, 24, pp. 11-14

Amarendra Nath, "Toponymy of Asaka and *Sika*", *Indica*, 27.

Amarendra Nath, "Adam - An Index to Vidarbha Archaeology", *New Trends in Indian Art and Architecture*, Felicitation to Dr. S.R. Rao, on his 70th Birthday, N.C. Ghosh & B.U. Nayak (ed.), Panaji, 1992, pp. 69-79.

Amarendra Nath, "Some Observations on the Chronology of Bhadras and Mitras in Vidarbha", *JNSI.*, Vol. LII, PP. 48-57.

Amarendra Nath, "Lajjā Gauri and her possible genesis", *LK.*, No. 25 (1990), pp.42-47.

Amarendra Nath, "A Kshatrapa Coin Mould", *JNSI.*, Vol. LIV, pp.60-61.

S.R. Rao, *Archaeologia* No. 32, Sommaire, January-February, 1970, pp. 56 ff.

H.D. Sankalia, *et al*, *The Excavations at Maheshwar and Navadatoli, 1952-53*, Poona Baroda, 1958.

H.D. Sankalia, "Cultural Significance of Saddle Querns", *J.A.S.I.*, Bombay, Vol. IV, No. 1, 1950, pp. 35-39.

H.D. Sankalia & S.B. Deo "Saddle Querns and Stratigraphy", *The Journal of the Royal Asiatic Society*, October, 1957, pp. 209-212.

A.M. Shastri & C.S. Gupta, "Note on a Coin of Damabhadra from Pauni", *JNSI.*, Vol. XLV pp. 107-111.

A.M. Shastri, *Early History of the Deccan Problems and Perspectives*, 1987.

A.M. Shastri (ed.) "New Vakataka Inscriptions", *The Age of the Vakataka*, New Delhi, 1992, pp. 227-268.

A.M. Shastri, "Buddhist Inscriptions from Pauni", *J.E.S.I.*, Vol. 23, 1997, pp. 51-57.

K.K. Thapliyal, *Studies in Ancient Indian Seals*, Lucknow, 1972.

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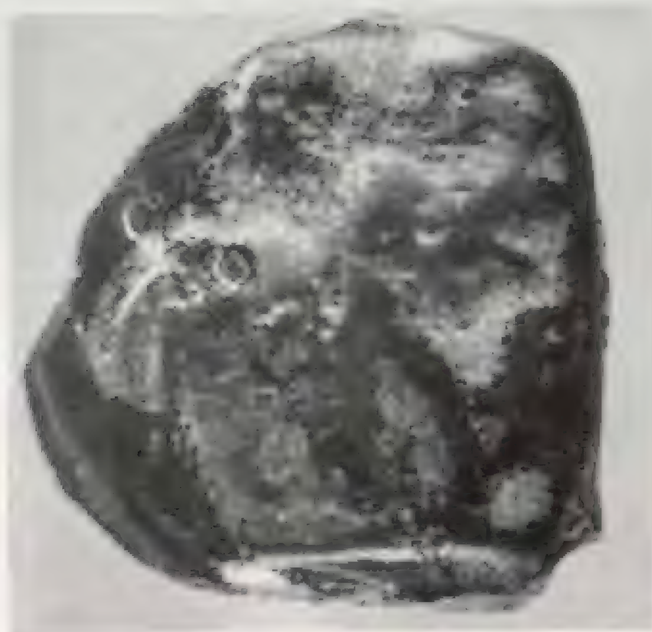
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A



B

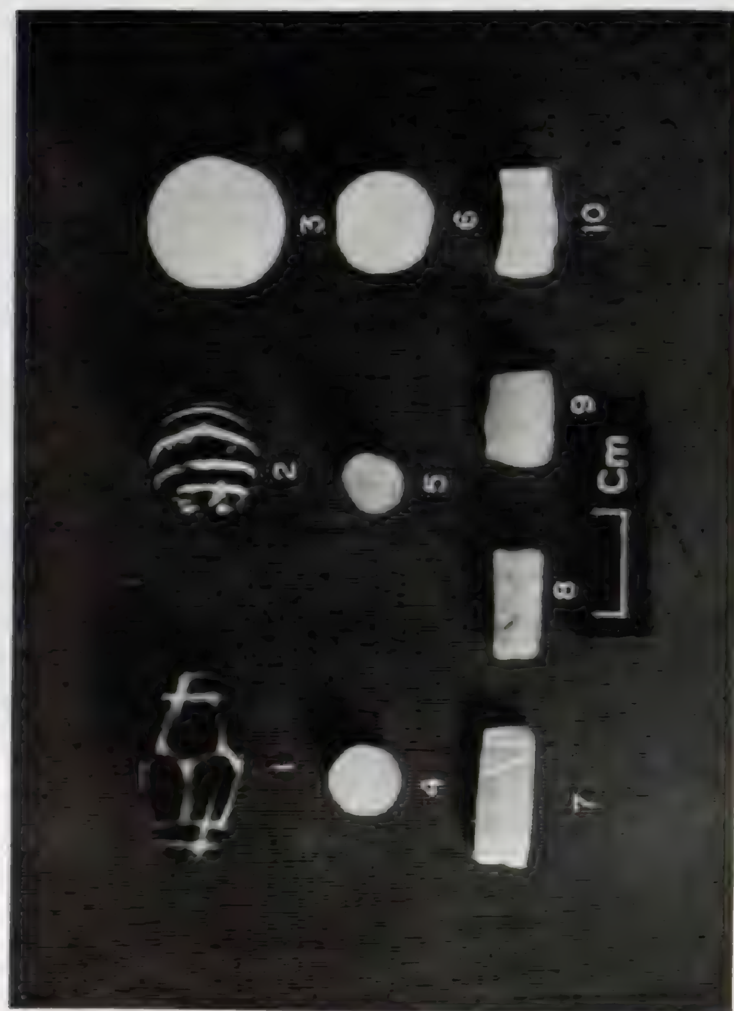
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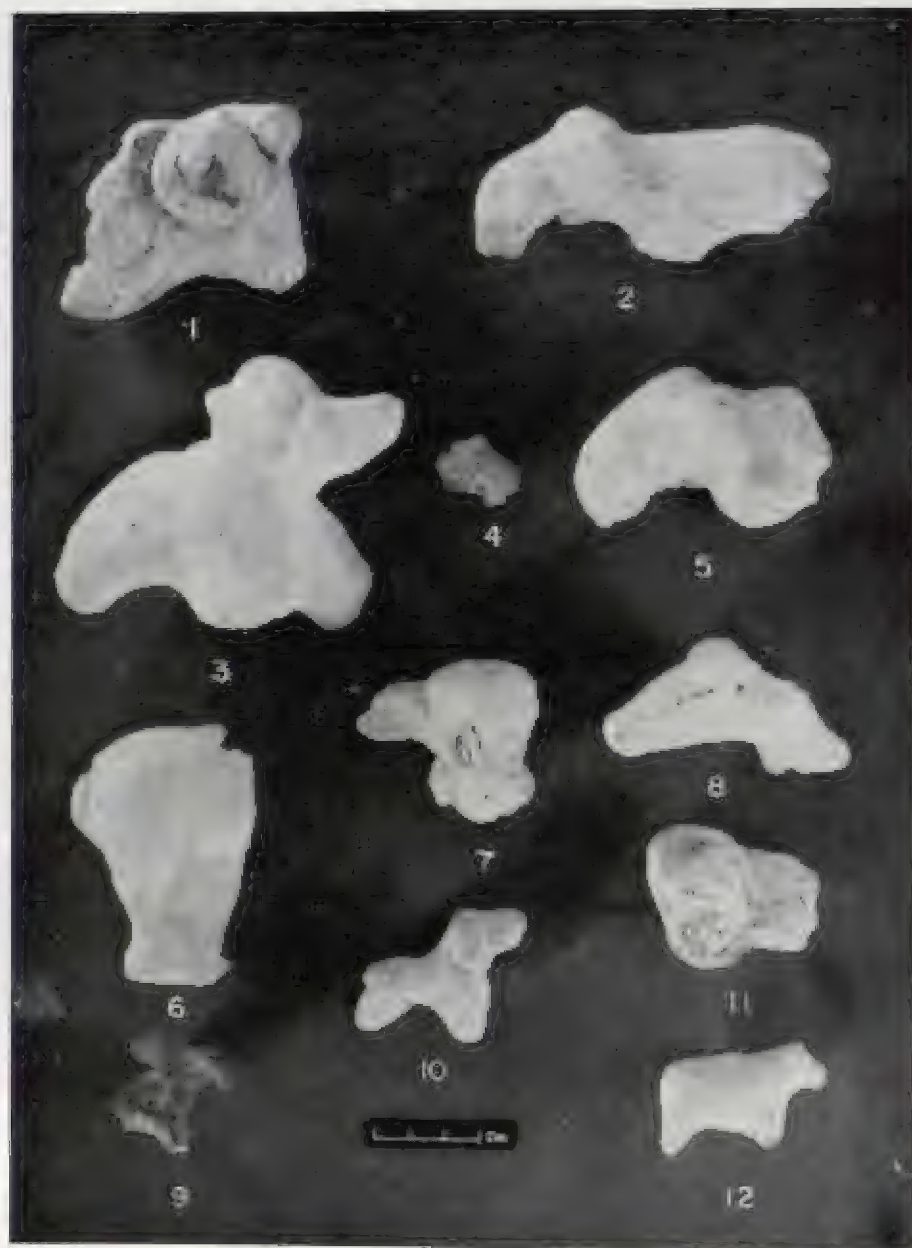
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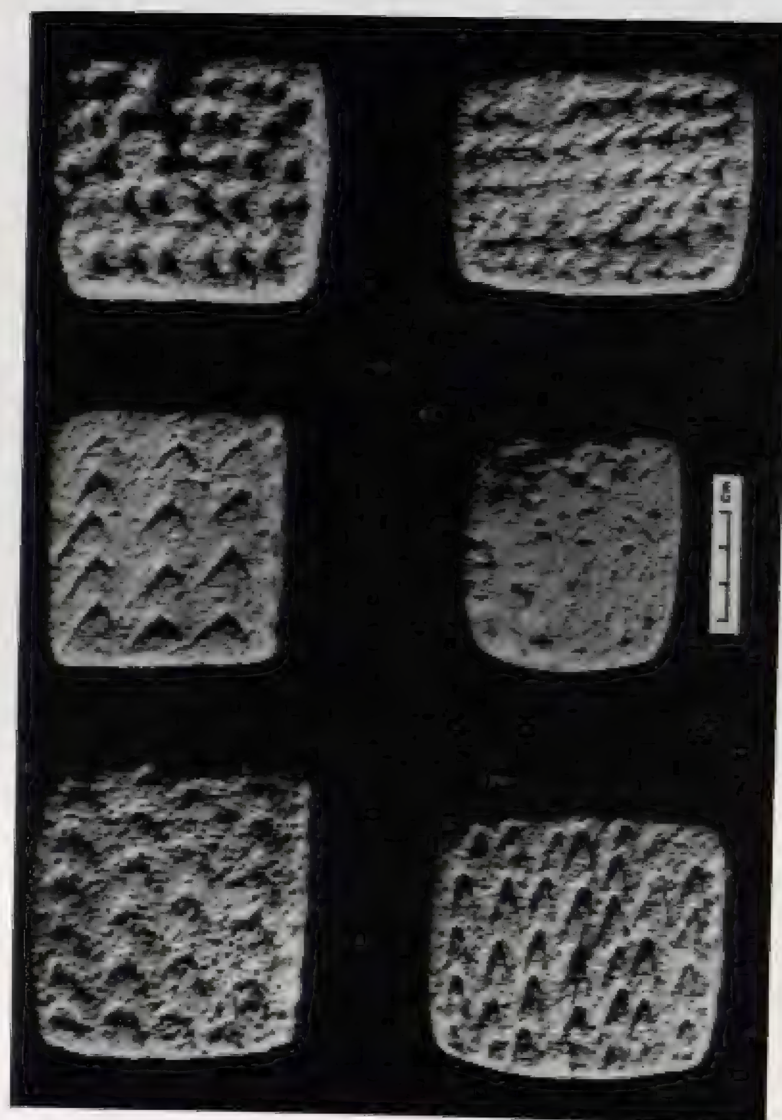
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B

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A



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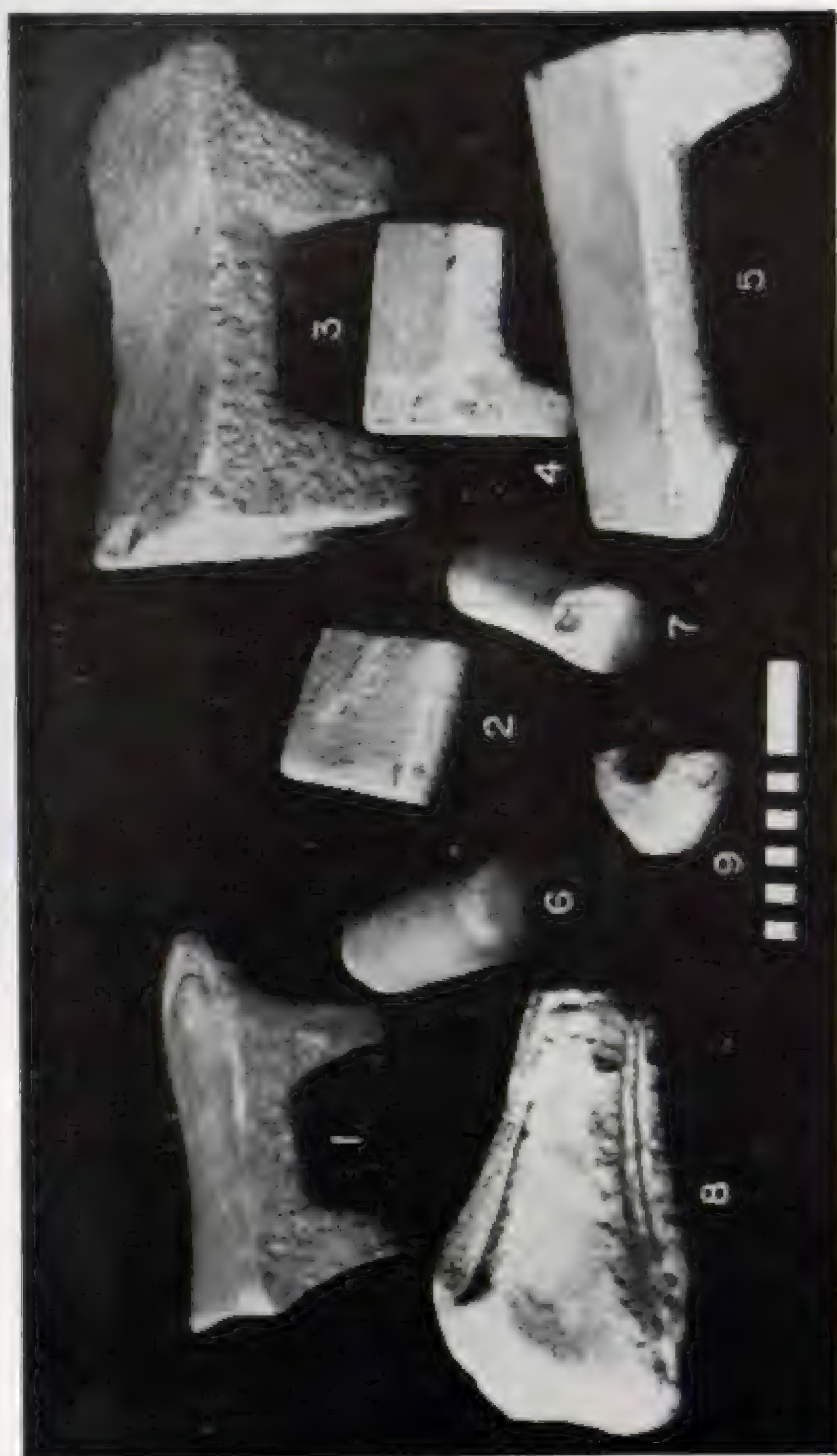


A



B

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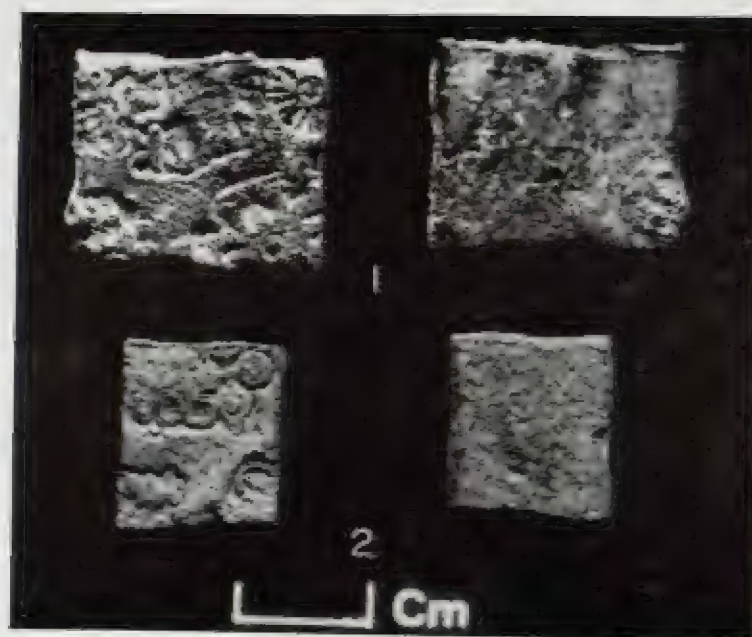
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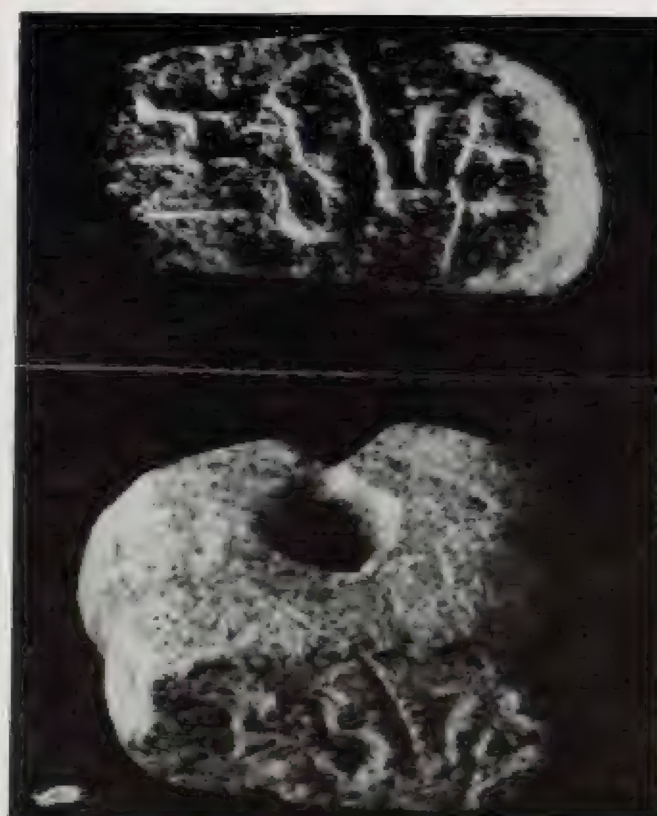
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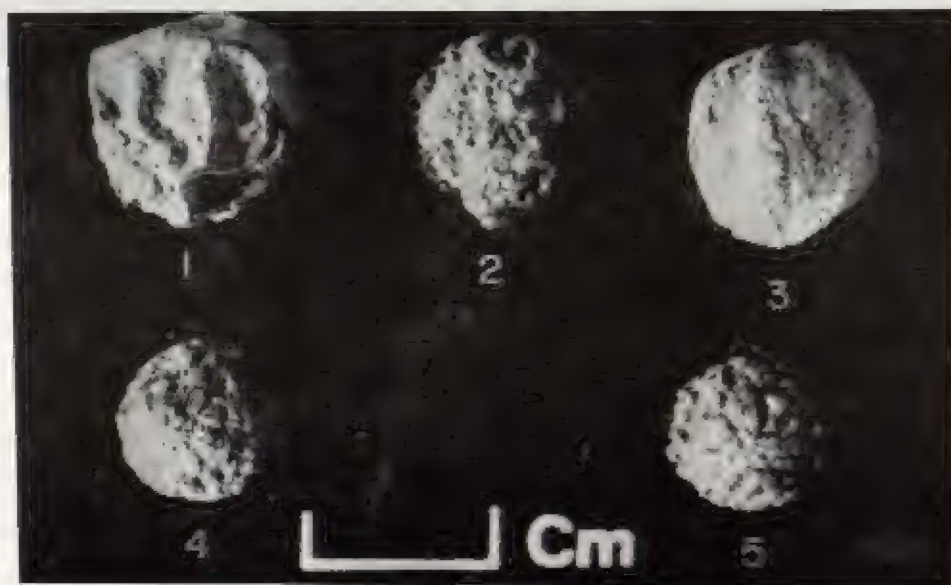
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A

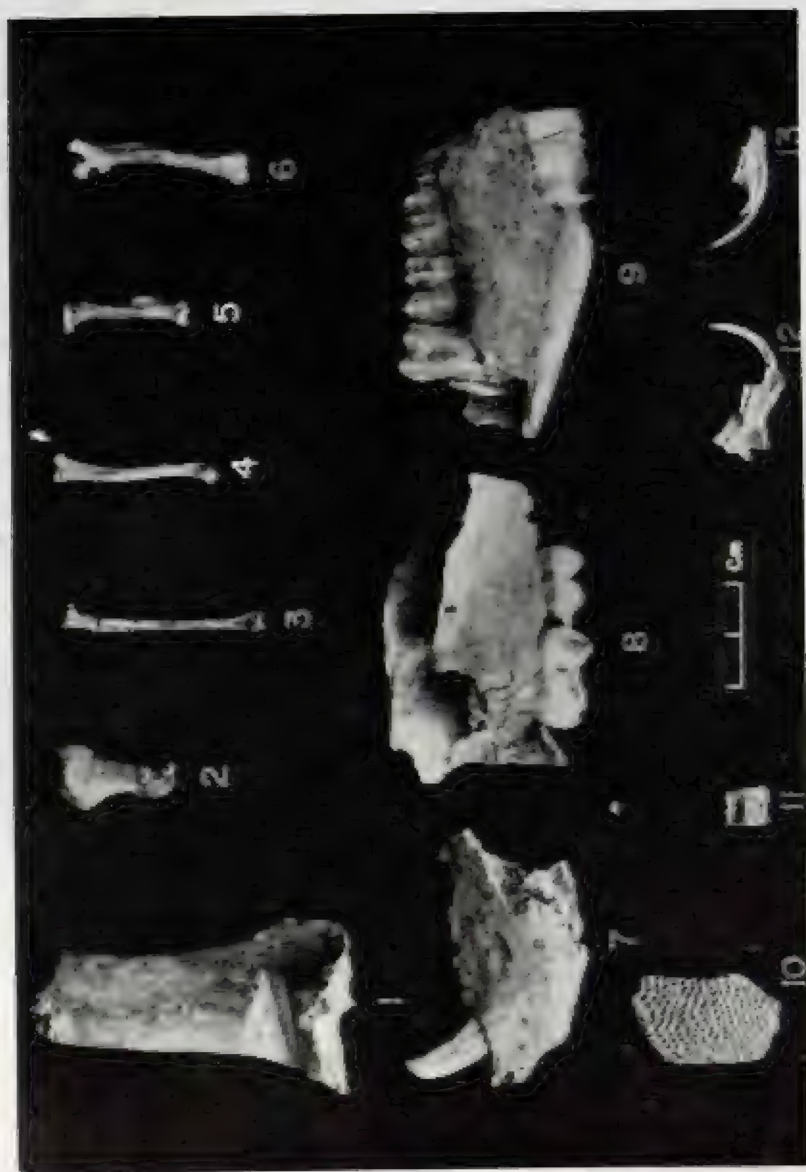


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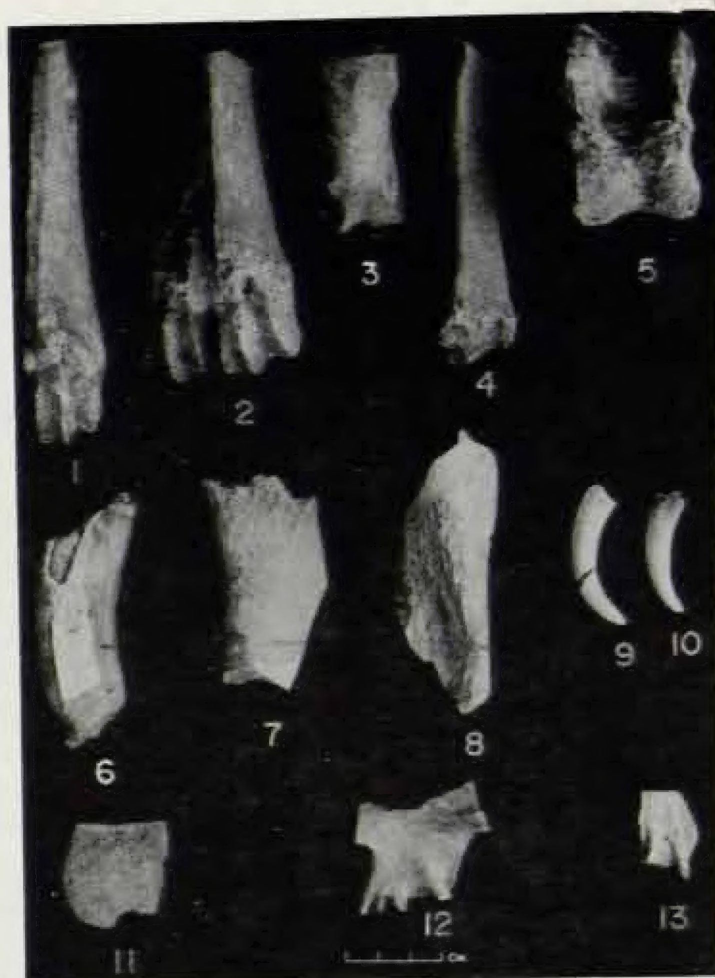


A



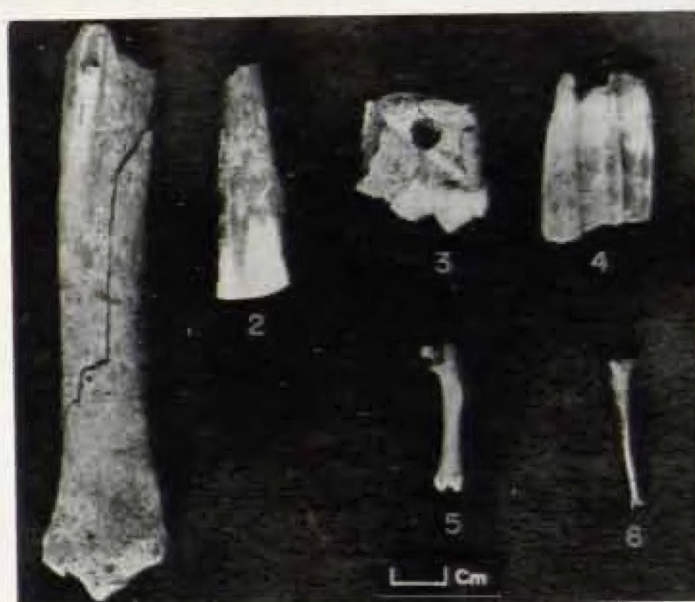
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A





B

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